TEACHERS' CONFIDENCE IN ADDRESSING STUDENT MENTAL HEALTH CONCERNS

A Dissertation

by

LAURA B. FRAME

Submitted to the Office of Graduate and Professional Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

Chair of Committee,	Cynthia A. Riccio
Co-Chair of Committee,	Constance Fournier
Committee Members,	Oi-Man Kwok
	Lisa Bowman-Perrott
	Julie Harlin
Head of Department,	Shanna Hagan-Burke

August 2017

Major Subject: School Psychology

ABSTRACT

Teacher-led student mental health initiatives are recommended; however, do teachers receive adequate training to provide these services? This study aimed to examine what individual teacher variables directly relate to teachers' knowledge and skills regarding general schoolwide behavioral policies and individualized support and practices, and what influence they exert on teachers' confidence. The study was a quantitative method cross-sectional design using survey methods. Results demonstrated that both years of teaching experience and the number of resources available were statistically significant predictors of teachers' general behavioral programming knowledge. Additionally, both mental-health related college coursework and assigned grade level predicted teachers' individualized student supports knowledge and skills. Lastly, results demonstrated that teachers with higher individualized support and practices knowledge reported increased confidence in providing mental health interventions. Limitations include restricted generalizability due to limited response rate and uneven district representation. Implications and future directions emphasizing targeted professional development opportunities designed to increase teacher knowledge and skills related to evidence-based mental health practices are discussed.

ACKNOWLEDGEMENTS

This body of work would not be possible without the steadfast support and guidance offered by my committee co-chairs, Dr. Cynthia Riccio and Dr. Constance Fournier. Without their frequent encouragement and gentle reminders, I would not have reached the finish line. I would also like to thank my committee members, Dr. Bowman-Perrott, Dr. Oi-Man Kwok, and Dr. Julie Harlin for their personal and professional guidance.

Nobody has been more important to me in the pursuit of this project than my family. I especially wish to recognize my loving and supportive husband, Mike, who encouraged me to pursue my dream of a PhD. I am also grateful to my wonderful son, Stephen, for providing me with unending inspiration. I would like to thank all of my family for their reassurance and patience throughout this process.

Lastly, I would like to thank all of my friends, colleagues, and the department faculty and staff for making my time at Texas A&M University such an amazing experience. Special thanks go to my cohort members who have been the best cheering section a girl could ask for since day one, August 26, 2013.

CONTRIBUTORS AND FUNDING SOURCES

Contributors

This work was supervised by a dissertation committee consisting of Professor Cynthia Riccio of the Department of Educational Psychology, chair, Professor Constance Fournier, co-chair, of the Department of Educational Psychology, Professor Oi-Man Kwok of the Department of Educational Psychology, Professor Lisa Bowman-Perrot of the Department of Educational Psychology, and Professor Julie Harlin of the Department of Agricultural Leadership, Education, and Communications.

All work for the dissertation was completed independently by the student.

Funding Sources

There are no outside funding contributions to acknowledge related to the research and compilation of this document.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

CHAPTER I

INTRODUCTION

Classroom teachers are essential to school-based mental health services' success (Franklin, Kim, Ryan, Kelly, & Montgomery, 2012; Grayson & Alvarez, 2008; Han & Weiss, 2005; Tolan & Dodge, 2005). Utilizing classroom teachers as social-emotional intervention providers rather than hiring additional mental health support staff is a strategy often employed by school districts that delegate limited resources to mental health services (Han & Weiss, 2005). Yet, it remains unclear whether classroom teachers receive adequate training to deliver targeted mental health interventions. In particular, research focused on teacher-specific factors that influence social-emotional intervention implementation and sustainability is limited (Hann & Weiss, 2005).

Preventative mental health services have demonstrated success in decreasing the onset and continuation of many child and adolescent psychological and associated academic problems (Durlak & Wells, 1997; Greenberg, Domitrovich, & Bumbarger, 2001; Greenberg et al., 2003; Wilson, Lipsey, & Derzon, 2003). Costello, Egger, and Angold (2005) found that one out of every eight children has an impairing psychiatric disorder. Furthermore, the U.S. Department of Health and Human Services (2013) report affirmed that between 13 and 20% of children experience mental illness symptoms within a given year. Students carry their vulnerabilities including socio-emotional challenges with them to school, directly interfering with their ability to actively participate in the learning environment (Roeser & Midgley, 1997). Emotional difficulties combined with learning problems increase risk for continued psychological

and educational struggles (Baker, Grant, & Morlock, 2008; Cheney & Barringer, 1995; Dodge & Pettitt, 2003; Greenberg et al., 2003; Gresham, 2004). School-based mental health services attempt to fill the gap of available mental health intervention services for all students.

Children with untreated mental health disorders struggle with maintaining focus and concentration on their academics, disrupting their academic progress (Baker et al., 2008). Struggling to make adequate progress while falling further behind their peers, students with mental health disorders experience increased academic frustration. Further, school failure compounds mental health symptoms, increasing the probability that these students will eventually develop more serious psychopathology (Baker et al., 2008; Durlak & Wells, 1998) and/or drop out of school (Dodge & Pettit, 2003; Lane, 2007). Dropping out of school, in turn, negatively impacts their future opportunities, potentially leading to future employment instability or unemployment (Dodge & Pettit, 2003; Lane, 2007).

Unaddressed emotional and/or behavioral concerns intensify students' symptoms of psychopathology, often starting students on a downward spiral towards more significant conduct problems (Dodge, Greenberg, & Malone, 2008; Dodge & Pettit, 2003). Increased conduct problems may veer youth into the path of future legal problems. Research has shown that students removed for disciplinary infractions are more likely to become involved in the juvenile justice system, potentially involving future incarceration (Baker et al., 2001; Civil Rights Project, 2000). If provided with effective school-based mental health services, disciplinary referrals are likely reduced,

improving troubled students' outcome trajectory (Durlak & Wells, 1998; Greenberg et al., 2001; Greenberg et al., 2003; Lane, 2007).

The most tragic consequence of neglected mental health concerns is suicide. Desperate youth may lose hope, opting to end their lives. The U.S. Department of Health and Human Services (2013) reported that suicide was the second leading cause of death for youth between the ages of twelve and seventeen in 2010. Related to this King, Price, Telljohann, and Wahl (1999) conducted a nationwide survey of high school health teachers assessing their self-efficacy in relation to identifying students with suicidal intent. Unfortunately, although the majority of the respondents felt they were responsible for identifying students at risk for suicide, only 9% of these teachers felt they were capable of recognizing the risk factors. The majority of the teachers surveyed as part of this study reported they had not received any in-service training targeted to adolescent suicide risk assessment within the last five years. Furthermore, less than half of the respondents felt they were qualified to speak with students regarding their suicidal thoughts or offer effective support (King et al., 1999). Despite the obvious need and urgency of intervening with suicidal adolescents and teens, limited studies have explored teachers' feelings of self-efficacy in relation to intervening with potentially suicidal students.

In order to alleviate the striking disparity in children's ability to access mental health services, where less than a quarter of students receive the services they need, schools must increase available services for students exhibiting subclinical symptoms (Tolan & Dodge, 2005). Gresham (2004) pointed out that schools provide an ideal setting for intervention-related activities due to the significant amount of time that

teachers and students spend together in both structured and unstructured contexts. Historically, most students identified with significant emotional and behavioral disorders (EBDs) were served predominantly by special education teachers (Cheney & Barringer, 1995; Franklin et al., 2012); however, educational reform initiatives such as No Child Left Behind (NCLB; 2002) have increased general education classroom teachers' responsibility for meeting students' mental health needs.

Mental Health Services in Schools

Mental health services in the schools are generally classified within three broad areas: universal or primary prevention provided for all students (Tier 1), targeted or secondary interventions for at-risk students (Tier 2), and tertiary or indicated interventions, which are more intensive (Tier 3) that are provided for students with severe and chronic problems (National Association of School Psychologists [NASP], 2006). Overwhelmingly, classroom teachers are saddled with the responsibility of identifying students requiring increased mental health services, triaging students with mental health concerns, and implementing Tier 1 mental health interventions, such as social skills training, psychoeducational prevention curricula, or bully prevention programs (Blum & Cheney, 2009; Cheney & Barringer, 1995; Franklin et al., 2012).

Mental health concerns can be grouped into two categories. Depending on the behavioral manifestation, students may be classified as exhibiting predominantly externalizing or internalizing behavior disorders (Merrell, 2008). Externalizing disorders are usually considered disruptive or aggressive; therefore, these students are frequently the primary focus of the teacher's attention (Cheney & Barringer, 1995; Kokkinos, Panayiotou, & Davazoglou, 2005; Walter, Gouze, & Lim, 2006). Classroom

management is necessary for all students to benefit from the learning environment, so teachers focus their attention on students who are exhibiting externalizing behaviors. Research indicates that teachers also may be more familiar and comfortable handling externalizing behavior concerns (Walter, Gouze, & Lim, 2006). Students exhibiting externalizing behavior problems often respond favorably to reinforcement strategies, such as token economies or classroom point systems. These are interventions that teachers are more familiar with implementing (Elliott, Witt, Galvin, & Peterson, 1984). Focus on these externalizing behaviors leaves teachers with less time to deal with internalized behavior concerns.

In contrast to externalizing behaviors, students who have internalizing disorders frequently go unnoticed (Bryer & Signorini, 2011; Green, Clopton, & Pope, 1996; Graham, Phelps, Maddison, & Fitzgerald). Escaping detection, students with internalizing problems often do not receive the mental health support they require (Bryer & Signorini, 2011; Green, Clopton, & Pope, 1996; Graham, Phelps, Maddison, & Fitzgerald, 2011). Internalizing disorders encompass a variety of psychological stresses, including depression, anxiety, and sometimes psychosis. Some teachers may lack understanding and awareness of how to appropriately interact with these students (Cheney & Barringer, 1995; Walter et al., 2006). Interventions designed to address internalizing problems are complex and teachers may not be comfortable engaging in services that they consider to be 'counseling'. For example, Cheney and Barringer (1995) surveyed a group of middle school teachers and found that they felt limited competence in several areas such as with promoting students' social development, implementing aggression-reducing strategies, providing basic counseling or problem-

solving skills, and utilizing crisis prevention strategies. When a teacher becomes aware that a student is potentially suicidal, they may be uncertain of how to approach the student out of concern for the possibility of triggering a negative response (King et al., 1999). Additionally, teachers may be frightened of students who exhibit unusual thinking patterns or bizarre responses, such as delusional thinking.

Teacher Accountability for Student Mental Health

Classroom teachers are stationed on the front lines for recognizing and responding to students who have mental health disorders (NASP, 2006; Education Code S. 460, 2013). Studies (Blum & Cheney, 2009; Bryer & Signorini, 2011; Cheney & Barringer, 1995; Franklin et al., 2012; Roeser & Midgley, 1997) suggest that most teachers do not feel competent when faced with identification and provision of supports for students with mental health disorders. Often these teachers have not been not sufficiently trained to recognize students with mental health disorders, and do not receive adequate support from their administration or other staff. Desperate for guidance, it is possible that teachers may resort to obtaining information from less reliable sources. For example, Roeser and Midgley (1997) found that elementary teachers felt overwhelmed by their students' mental health needs. Furthermore, Burns et al. (1995) pointed out that in addition to instruction, campuses implementing school-based mental health services have added monitoring their students' social-emotional health to the list of teacher's existing responsibilities. Lacking appropriate training or sufficient support, classroom teachers may experience burnout, potentially abandoning the profession while their students with mental health needs will continue to suffer (Brouwers & Tomic, 2000; Grayson & Alvarez, 2008).

During the 2013 legislative session, the State of Texas passed a Senate Bill 460, a mandate holding teachers accountable for recognizing and responding to students' EBDs (Education Code, 2013). In response to the mandate, a training module was developed; however, funding was removed and Texas teachers are no longer being offered access to this resource. Without access to this standardized training module, school districts will likely differ significantly in their offering of continuing education opportunities designed to increase teachers' knowledge and skills related to mental health disorders. Teachers continue to require training designed to increase their ability to identify mental health disorders commonly experienced by children and to increase their knowledge of classroom accommodations for these types of behaviors. Additionally, training is required to improve teachers' understanding of how to appropriately respond to suicidal students and to increase their understanding of the referral process. Whether or not teachers will receive such training related to mental health remains questionable. Self-efficacy is a construct that may offer suggestions on how to increase teachers' knowledge and skills in these areas.

Teacher Self-Efficacy

Self-efficacy is defined as an individual's sense of personal ability to influence changes when applying consistent effort, in addition to the perceived modifiability of the environment (Bandura, 1993). For teachers, self-efficacy beliefs influence various aspects of their decision-making process and behavior. Many studies have demonstrated that teachers' perception of self-efficacy influences their teaching practice. For example, Bandura (1993) observed that teachers lacking a secure sense of instructional efficacy show a weaker commitment to teaching and spend less time on academic matters.

Gibson and Dembo (1984) found that teachers with low self-efficacy will readily give up on students exhibiting difficulties and are more likely to criticize them for failures. Similarly, Brouwers and Tomic (2000) found that teachers with low perceived self-efficacy in their own classroom management skills are more likely to experience a decreased sense of personal accomplishment and increased sense of depersonalization. It may therefore be concluded that teachers holding positive self-efficacy perceptions are more likely to exhibit flexible thinking and are more likely to attempt new techniques and strategies.

The Current Study

Given the incidence rates of mental health disorders in children and adolescents (U.S. Department of Health and Human Services, 2013), teachers are likely to encounter many students exhibiting mental health concerns within their classrooms. Teachers with higher ratings of baseline knowledge are expected to report higher confidence in their skills and competency in working with students exhibiting from mental health disorders versus teachers reporting low levels of baseline knowledge. There is paucity of research regarding the influence of teacher self-efficacy related to the identification of and intervention with students who have EBDs. Given this lack of available information, the purpose of this study is to examine teachers' perceptions of mental health disorders and to investigate what factors influence their willingness to provide socio-emotional supports to these children. In order to do so, it will be important to determine how knowledgeable teachers are regarding mental health conditions and to assess their comfort level with addressing emotional and behavioral needs within the classroom. Also, this study will investigate teachers' perception of their ability to assist students

with mental health needs. The information yielded by this study may inform districts about what relevant and necessary professional development topics their teachers need to feel successful in implementing student mental health supports.

CHAPTER II

REVIEW OF LITERATURE

This chapter will first review current federal and state mandates that are exerting pressure on teachers to monitor and respond to student mental health concerns. Next, individual teacher characteristics that impact their understanding of how children manifest various mental health disorders are discussed. The theoretical model of self-efficacy and its impact on teachers' performance and risk for burnout will be presented. Finally, both teacher and context-specific implementation barriers will be discussed.

Federal and State Mandates Related to Mental Health

Federal Legislation

Congress enacted Public Law 94-142 (PL 94-142) in 1975, requiring state and local education agencies to provide equitable access to educational services for children with handicapping conditions. In 2004, Congress passed the Individuals with Disabilities Education Improvement Act (IDEIA), which significantly shifted the placement trend for special education students from a restrictive, usually self-contained setting, to a more inclusive setting. IDEIA (2004) emphasizes the special education students' right to receive educational opportunities within the least restrictive environment (LRE). In other words, students with all types of disabilities, including emotional and behavioral disabilities, should be given the opportunity to participate alongside their typically developing peers in general education settings.

Following the passage of PL 94-142 (1975) and IDEIA (IDEIA, 2004), responsibility for teaching all students was redistributed, holding general education

teachers equally accountable for inclusive programming for students with special needs. IDEIA placed new pressure on regular education teachers to understand how to accommodate and modify for students with special needs within mainstream classrooms. For example, general education teachers who have students identified with emotional or behavioral disorders are responsible for understanding and adhering to their functional behavior assessments (FBAs) and behavior improvement plans (BIPs). In 2004, Scott and colleagues targeted the deficit of research validating teacher-directed FBA practices, calling for more realistic research methodologies balanced between empirical validation and social validity. Additionally, Scott and colleagues (2004) suggested researching both the empirical validity of FBA methodology in the public schools, along with demonstrating how feasible it is for school staff to conducting FBA procedures. Similarly, Hawken, Vincent, and Schumann (2008) pointed out that there is limited research demonstrating how to effectively train school personnel to utilize a FBA. Unfortunately, teacher training programs and teacher professional development programs continue to lack consistent training methodology addressing this need.

Compliance with the added responsibility of monitoring students' individualized behavior goals, oftentimes generated by FBAs, is impacted by teachers' overall comfort level. How comfortable are general education teachers with instructing students identified with significant emotional disturbance (SED) in their classrooms? Although SED is the current eligibility term used in federal law (IDEIA, 2004), the National Mental Health and Special Education Coalition (as cited in Forness & Kavale, 2000) have proposed an alternative, more inclusive term, EBD, which many states have adopted. Cheney and Barringer (1995) expressed concern that inclusion of students with

EBDs in mainstream settings may have outpaced required pre-service and in-service preparation needed by teachers. Similarly, Roeser and Midgley's (1997) survey of teachers found that over two-thirds of the general education teachers felt overwhelmed addressing the mental health needs of their students. More recent studies, including Grayson and Alvarez's (2008) study concluded that teachers experience increased burnout from the added burden of providing services for social-emotional health in addition to academics, especially given the increased number of students with significant emotional and behavioral needs in their classrooms. Furthermore, Grayson and Alvarez's (2008) survey of both general and special education teachers revealed that teachers experience decreased feelings of efficacy and personal accomplishment when burdened with roles outside direct instruction, such as management of individualized educational plans (IEPs) and providing mental health programming for students. These findings suggest that teachers are not equipped with the knowledge and skills necessary to instruct students with EBDs.

Universal Mental Health Initiatives

Society has seen a significant shift in the focus on students' mental health over the past decade and this is reflected in schools. Formerly, families were predominantly responsible for overseeing their children's mental well-being with schools serving primarily as venues to obtain academic instruction (Tolan & Dodge, 2005). Furthermore, in the past only students identified with EBDs were targeted recipients of social and emotional supports within the schools, typically through special education. Responsibility shifted in the early twenty-first century, following the passage of NCLB (2002) and the President's Commission on Excellence in Special Education (United

States, 2003). Changes ensued, forcing school districts into a paradigm shift focusing on early intervention services and prevention. Additionally, NCLB (2002) enabled districts to redistribute funding for intervention and prevention efforts, decreeing that the benefits of school mental health services and specialized programming would no longer be limited to only students with the most severe EBDs. Instead, preventative mental health services are now expected to stave off future difficulties and problems by addressing student's mental health concerns at early stages when they are more amenable to intervention (Durlak & Wells, 1997; Greenberg, Domitrovich, & Bumbarger, 2001; Greenberg et al., 2003; Wilson, Lipsey, & Derzon, 2003). Early intervention is intended to stave off future difficulties and problems.

The Every Student Succeeds Act ([ESSA], 2015) signed into effect in December 2015, shifts authority from the federal Secretary of Education to state and local jurisdictions. According to the Center for Health and Healthcare in Schools (2014), student achievement, school climate, graduation rates, prevention of risky behaviors, disciplinary incidents, and substance abuse are all directly associated with student mental and behavioral wellness. In order to address these concerns, the ESSA (2015) authorizes the use of various funding streams to support state and district efforts directed towards improving access to coordinated comprehensive school-based mental health services. Specifically, the ESSA (2015) seeks to improve schools' climate, school safety, and improve conditions for learning.

Texas Senate Bill 460 (2013)

State as well as federal mandates impact the provision of mental health services in schools. In 2013, Texas passed a bill requiring training for classroom teachers to

increase their understanding and ability to detect students with EBDs along with training how to implement positive behavioral interventions and supports (Education Code S. 460, 2013). A training module and website were designed provide training and materials to teachers. However, changes in funding resulted in the removal of the website and training resources in 2015. Presently, mental health awareness training for both pre-service and in-service teachers has been delegated to teacher training programs and individual school districts. Therefore, whether or not teachers have been offered adequate training opportunities about how to recognize and respond to students who have mental health concerns remains uncertain.

Meeting the Legislative Mandate

A three-tiered model for classification of intervention services, usually referred to as response to intervention (RTI), is the recommended practice (Durlak & Wells, 1998; Franklin et al., 2012; Gresham, 2004; Hawken et al., 2008). Initial preventative models primarily addressed academic concerns, which are more easily monitored and assessed for response to intervention efforts (Hawken et al., 2008). Presently, schools continue to struggle with devising a consistent model to address emotional and behavioral concerns (Hawken et al., 2008). Although mental health interventions are less clearly defined than interventions for learning difficulties, schools may attempt to apply this three-tiered approach (Gresham, 2004; Hawken et al., 2008; Sugai, Horner, & Gresham, 2002; Walker, Cheney, Stage, & Blum, 2005). Hawken and colleagues (2008) emphasized that although some applications of academic and behavioral interventions have similarities, they have significant differences in implementation. Specifically, measuring students' response to the intervention and establishing criteria for

transitioning between tiers of support differ for academic and behavioral interventions (Hawken et al., 2008).

For both academic and behavioral interventions, primary (Tier 1) interventions are universal services available to all students (Sugai, Horner, & Gresham, 2002; Gresham, 2004). Tier 1 interventions for emotional and behavioral concerns consist of systematic procedures, policies, or initiatives, such as school-wide discipline plans, district-wide bullying prevention programs, psychoeducational curriculum, and social skills training in the general education classroom (Gresham, 2004; Sugai, Homer, & Gresham, 2002). Universal behavioral interventions are designed to target and consequently benefit all students (Gresham, 2004; Sugai, et al., 2002).

One specific example of a district-wide primary intervention approach is School-Wide Positive Behavior Interventions and Supports ([SWPBIS]; Sugai, et al., 2002; Sugai & Horner, 2006). SWPBIS is intended to establish a school environment that addresses behavioral concerns in a positive and preventative manner (Sugai & Horner, 2006). SWPBIS systems are implemented school-wide, establishing standardized behavioral expectations and increasing school staff's positive reinforcement of appropriate behavior (Gresham, 2004; Hawken et al., 2008; Sugai, et al., 2002; Walker et al., 2005). Staff members are trained to let their students know their classroom expectations by clearly stating and posting expected behaviors. One critical aspect of a successful SWPBIS program is the consistent use of outcome data to inform decision making; outcome data may include many data points, such as school disciplinary data, student attendance, or behavioral screening results (Sugai & Horner, 2006). An example of a SWPBIS program commonly employed within school districts is the CHAMPS

discipline program (Sprick, Garrison, & Howard, 2002). Teachers are instructed to objectively and clearly define expected behaviors for each type of typical classroom practice and post these expectations within students' line of vision in their classroom. Additionally, teachers are encouraged to reinforce positive behaviors within the classroom using tokens or tickets. Other primary interventions may include psychoeducational curricula. Schools may adopt a character education or emotional intelligence type of program and post psychoeducational material throughout the school.

As mentioned in the previous paragraph, in conjunction with SWPBIS implementation, schools are also expected to monitor or screen students for concerns. Students who are unresponsive to universal preventative interventions based upon progress monitoring data are identified as requiring additional supports are moved within the secondary tier of interventions (Gresham, 2004; Sugai & Horner, 2006). Secondary (Tier 2) interventions are targeted and more intensive interventions that are recommended from available evidence-based interventions ([EBIs]; Gresham, 2004; Sugai & Horner, 2006). Evidence-based implies that interventions have been proven effective for the targeted population and are verifiable using existing research (Kratochwill & Shernoff, 2004; Merrell & Buchanan). Moreover, Tier 2 interventions are typically delivered in a targeted small group manner. Social and emotional interventions that may fall within the second tier of RTI may include both group and individual student foci. Group-based interventions may include social skills instruction, psychoeducational prevention curriculum, and didactic counseling groups (i.e., groups for anger management); (Franklin et al., 2012). Individualized supports may include student behavior contracts or point systems (Franklin et al., 2012). Students receiving

targeted interventions are expected to be monitored for progress (Gresham, 2004; Sugai & Horner, 2006). Non-responding students may require a revised action plan or may be moved into a more intensive level of intervention (Gresham, 2004; Sugai & Horner, 2006).

Tertiary (Tier 3) social-emotional interventions are highly individualized and are designed for students considered the most emotionally or behaviorally challenged. Tertiary interventions may include individualized counseling services, targeted or process oriented group counseling, or specific individualized behavior plans. Schools often consider referrals for special education as a Tier 3 level action. Once a student is identified as eligible for services due to EBD, the school is responsible for drafting an IEP. The student's IEP should have services designed to address the behaviors of concern for that individual. Teachers are generally expected to either carry out in part or support the individualized social-emotional programming designed for students. Students served due to EBD typically have a BIP and an FBA as additional supplements to their IEPs. Also, students may have IEP goals for related services such as counseling or social skills. Studies indicate, however, that teachers are not always adequately trained to understand how to implement a BIP, nor do they always understand how to interpret an FBA (Hawken et al., 2008; Scott et al., 2004).

Implementation Barriers

Although the tiered approach to mental health invention is considered important (Gresham, 2004; Hawken et al., 2008; Sugai et al., 2002), there are several issues regarding implementation that are of concern. According to Glover and DiPerna (2007), research is needed to determine compatibility of districts' assessment tools and data-

based decision-making criteria, and effects associated with systematic variation of intervention components (e.g., individualization and intensity of interventions) during each tier of service delivery. Schools often use different systems for managing progress monitoring data, impacting how efficiently they access and organize outcome data (Hawken et al., 2008). Studies suggest variability and uncertainty regarding the predictive validity of behavioral screening approaches and the consistent application of decision-making criteria for determining adequate student progress in RTI (Severson, Walker, Hope-Doolittle, Kratochwill, & Gresham, 2007). For example, some districts may have a very systematic approach and application of the three-tiered process, while other schools may offer a limited continuum of social-emotional tiered supports, hampering the application of a three-tiered approach. Sadly, application and implementation of the three-tiered process varies greatly, even within districts. Furthermore, Severson and colleagues (2007) emphasize that the success of RTI programs depend largely on treatment fidelity and the measures used to determine adequate or inadequate treatment response, which current research is unable to verify. Consistency is lacking, with some campuses offering a wide-range of social and emotional intervention supports along the continuum, while other campuses lack sufficient interventions to constitute a continuum (Hawken et al., 2008). Lastly, Hawken and colleagues suggest that schools struggle with implementation of Tier 3 behavioral support strategies.

Another commonly encountered problem is limited access to EBIs (Hawken et al., 2008). Resources are not equally available to all schools. Slade (2003) discovered that only approximately half of the secondary schools (middle and high schools) in the

United States offer onsite mental health counseling services. Additionally, contextual factors such as region, locale (e.g., urban or rural), and school size, impact availability of services (Slade, 2003). Availability of mental health counseling is a critical component in RTI's social-emotional service continuum (Hawken et al., 2008). Mental health professionals are also useful in supervising the implementation of EBIs (Franklin et al., 2012). Without access to support staff who are knowledgeable about mental health conditions, campuses may struggle with selecting and implementing EBIs for social-emotional concerns, which is essential to the success of an RTI model.

In addition to unequal resources, schools may not have adequate funding to purchase interventions or related materials. When this is the case, students do not receive the services they need. Without access to effective interventions or consultation teachers may resort to selecting interventions that are not evidence-based (Stormont, Reinke, & Herman, 2011). This is a major concern because using interventions that are not based upon research may not effectively support children's social and behavioral needs.

Mandate for Child Find

Teachers' Mental Health Knowledge

Teachers' limited knowledge of common manifestations of mental health disorders may cause them to not accurately recognize and intervene with students requiring additional supports. Studies suggest that teachers may struggle with detecting manifestations of commonly encountered externalizing and internalizing disorders. For example, Roeser and Midgley (1997) found that teachers were less able to perceive internalizing symptoms in students who were less likely to exhibit either acting out or disruptive behavior. Similarly, Bryer and Signorini (2011) discovered that elementary

and pre-service teachers may miss subtle somatic cues of emotional distress or misinterpret difficulties as personality traits due to students' varied expression of internalizing disorders.

It is essential that teachers detect and recognize students who need additional mental health supports. Once recognized, teachers have the responsibility to refer students in need of additional supports, such as students in crisis (e.g., students with suicidal ideation, or who have been abused). What factors impact teachers' decisions to refer students for additional supports? Green, Clopton, and Pope (1996) investigated patterns of children who were referred to mental health services and discovered many things. Teachers were more likely to refer boys due to externalizing problems and were less likely to refer girls or students with internalizing problems (Green et al., 1996). Additionally, Green and colleagues (1996) found that teachers were less likely to refer students with average academic performance. Teachers may underreport and under support students with behavioral and emotional problems (Del'Homme, Kasari, Forness, & Bagley, 1996; Lopez, Forness, Bocian, MacMillan, & Gresham, 1996). Abidin and Robinson (2002) investigated which student and teacher characteristics influenced teachers' referral decisions and concluded that a teacher's professional judgment, not racial or socioeconomic bias or teaching stress, drove referral decisions. More recently, Loades and Mastroyannopoulou (2010) found that although most teachers were good at recognizing whether or not a child presents with a problem, their perception of problem severity was influenced by the child's gender and the type of symptomology (e.g., internalizing versus externalizing). Similarly, Papandrea and Winefield (2011) found

that teachers felt unsure of their ability to recognize students' internalizing problem symptomology.

Teacher Characteristics and Identification

Individual teacher demographic variables may also influence teachers' response to emotional and behavior concerns. Green, Shriberg, and Farber (2008) discovered that female teachers often rated problem behavior vignettes as more severe than their male colleagues. They similarly discovered that preservice teachers were less likely than practicing teachers to seek help from campus mental health staff (e.g., school psychologist, social worker), perhaps due to their lack of awareness of these mental health staffs' consultation skills. It is also possible that placement impacts teachers' ability to recognize mental health concerns (Green et al., 2008). For example, Roeser and Midgley (1997) suggested that elementary teachers spend more time with their students daily, thus they may be better equipped to recognize and respond to students' mental health needs than secondary teachers.

Teacher Knowledge of EBIs

Surprisingly, Stormont and colleagues (2011) found that teacher-rated level of training and education on implementing behavior interventions was not associated with recognition of more EBIs. They did find, however, that special education teachers were more likely to prefer EBIs over non-EBIs for behavior concerns and felt more confident than general education teachers in implementation skills. Based on these findings, utilizing special education teachers as consultants due to their increased recognition of EBIs is recommended (Stormont et al., 2011). Individual teacher characteristics impact

whether or they are likely to select EBIs indicated to support students with mental health needs.

Self-Efficacy

General Self-Efficacy

Self-efficacy is a theoretical construct useful in understanding and appreciating teachers' mental health intervention practices. Bandura (1993, 1997) originated the theory regarding a person's perception of self-efficacy. Essentially, a person who feels they possess both the necessary knowledge and the skills necessary is more likely to approach a task with confidence. Unfortunately current research suggests that teachers do not typically receive adequate training opportunities to gain the necessary knowledge and understanding to appropriately respond to student mental health concerns (Blum & Cheney, 2009; Cheney & Barringer, 1995; Grayson & Alvarez, 2008; Roeser & Midgley, 1997). Teachers lacking sufficient knowledge regarding mental health conditions are likely to experience lower self-efficacy in their ability to respond to student mental health needs. Given that both federal and state mandates hold teachers accountable for recognizing students' mental health needs and directly providing social-emotional interventions, it is essential that teachers are offered improved pre-service and in-service training opportunities. Current established teacher pre-service and in-service training programs have not necessarily adapted to sufficiently prepare teachers for their expanded roles related to students' mental health.

Teacher Perceived Self-Efficacy

Research suggests that teachers who feel more self-efficacious are more confident in their teaching style/strategies (Gibson & Dembo, 1984). Teachers with high

self-efficacy ratings are also more likely to be flexible thinkers, more willing to provide accommodations/modifications, and more adept at providing emotional support and differentiating instruction for students exhibiting difficulties (Gibson & Dembo, 1984). Emmer and Hickman (1991) explained that teachers' classroom management and disciplinary efficacy are distinct from other facets of teacher efficacy. Following their survey of pre-service and student teachers, they concluded that efficacy beliefs likely account for differences in teachers' effort, preferences for particular types of disciplinary strategies, and choice of instructional goals. They also found that teachers who perceive higher self-efficacy in the classroom management and disciplinary skills were more likely to select positive strategies (Emmer & Hickman, 1991). Teachers' increased tolerance and flexibility will likely in turn enhance the student-teacher relationship as learn they are able to trust those teachers. Struggling students will be more likely to go to them for assistance, increasing their support network. Baker, Grant, and Morlock (2008) investigated the student-teacher relationship and found that teacher-student relationships characterized by warmth, trust, and low degrees of conflict were associated with positive school outcomes. Therefore, teachers with higher self-efficacy in relation to classroom management skills and social-emotional supports and strategies will positively impact student success (Franklin et al., 2012).

Teacher Burnout Risk

Teachers who feel more efficacious will experience greater job satisfaction and are less likely to burn out and possibly leave the profession. Decreased perceived self-efficacy may lead to teacher burnout. Burnout has been defined by Brouwers and Tomic

(2000) as having three distinct dimensions: emotional exhaustion, depersonalization, and a reduced sense of personal accomplishment.

In a longitudinal study conducted in the Netherlands, Brouwers and Tomic (2000) investigated teacher burnout and its relationship to the teachers' perceived self-efficacy in classroom management skills. Their study demonstrated that teachers who perceive themselves as having low self-efficacy in classroom management skills prefer to avoid those activities. When confronted daily with their incompetence, these teachers were more likely to burnout faster, potentially leading them to abandon the teaching profession. A similar study conducted by Bryer and Signorini (2011) reported that new teachers who were frustrated with encounters on their first job experienced culture shock, felt disappointed, and were less likely to accept new roles and responsibilities. Roeser and Midgley (1997) surveyed elementary teachers as part of a longitudinal study in the Midwest and found that teachers' feelings of being overwhelmed by their students' emotional difficulties were related to their sense of personal teaching efficacy. More efficacious teachers did not feel overburdened by their responsibility to address students' social-emotional needs (Roeser & Midgley, 1997). Unfortunately, the majority, two-thirds of the teachers who participated in their survey, reported feeling overwhelmed when faced with their students' mental health needs (Roeser & Midgley, 1997). Regrettably, teachers who are unprepared to address students' mental health needs may feel that their efforts are useless and are more likely to give up, burn out, and potentially quit. This is problematic because teachers leaving the profession create a revolving door of new teachers, providing limited stability for students and preventing

teachers from gaining the experience and confidence necessary to increase their self-efficacy and sense of accomplishment.

Implementation Barriers

Treatment Acceptability

Even if teachers demonstrate adequate self-efficacy, what other factors impact the implementation of school-based mental health programs? These factors include the perceived social validity of recommended EBIs as well as the availability of EBIs and related materials. Han and Weiss (2005) noted that teachers' perception of social validity is influenced by several determining factors, including: severity of problem-behavior; the type of treatment; and the amount of time required to implement the intervention. Additionally, teachers tend to rate interventions more favorably based upon how well they feel the interventions fit the problem and their familiarity with interventions (Han & Weiss, 2005). Teachers who have more time and feel that the interventions are more easily adapted and aligned with their existing practices are more likely to implement recommended EBIs.

Availability

Unfortunately, there are only a limited number of EBIs available specifically designed to be delivered by classroom teachers that address social and behavioral concerns (Hawken et al., 2008). Stormont and colleagues (2011) investigated whether or not teachers felt confident in selecting EBIs to use for students with emotional and behavioral concerns. Their survey revealed that less than half (44%) of the teachers surveyed were confident that the interventions they used have the desired impact on their students (Stormont et al., 2011). Only approximately half (53%) of teachers were aware

of issues that need to be considered while selecting a practice backed by research (Stormont et al., 2011). Gaining better understanding of what factors increase teachers' competency with selecting appropriate social-emotional interventions is essential to bridging the research to practice gap. In conclusion, if we better understand the variables that contribute to efficacy in regards to teacher roles in mental health intervention, we may be able to counter-act the burn-out trend for those teachers quitting because they feel burdened by student mental health issues.

Assessment of Teacher Knowledge and Self-Efficacy

Related Studies

Overall, current literature trends in this area have utilized various questionnaires to assess teachers' self-efficacy in relation to their knowledge and confidence regarding mental health interventions. For example, Emmer and Hickman (1991) assessed student teachers' perceived efficacy related to classroom management and discipline and found that efficacy beliefs predicted preferred teaching strategies. Specifically, they found a positive correlation between teachers' indicating confidence in their personal teaching efficacy and their preference for use of positive strategies. Emmer and Hickman noted the following regarding their results, "Whether proactive or interactive decisions are considered, efficacy beliefs could help account for differences in teacher effort, preference for particular discipline strategies, or choice of instructional goals" (1991, p. 756). Similarly, Cheney and Barringer (1995) assessed teachers' knowledge and skills specifically related to working with students identified with EBD. They administered the survey to teachers involved in a training project designed to convey the knowledge and skills necessary to educate EBD students in more inclusive settings. Though the

participating teachers recognized the importance of programs designed to enhance students with EBD's emotional and behavioral development, they indicated frustration when tasked with the responsibility for providing these individualized supports. Additionally, Cheney and Barringer (1995) found that the majority of the staff members did not feel confident in their ability to interactive effectively with students with SEDs. A number of other measures also have been investigated that specifically address implementation of behavior support strategies in the schools (Cheney & Walker, 2005; Sugai, Horner, & Todd, 2003; Sugai, Lewis-Palmer, Todd, & Horner, 1999; Walker, 2006; Walker et al., 2005). More recently, Blum and Cheney (2009) refined a questionnaire to assess both teachers' knowledge and skills with positive behavior support strategies and their confidence in providing individualized supports to students with EBD.

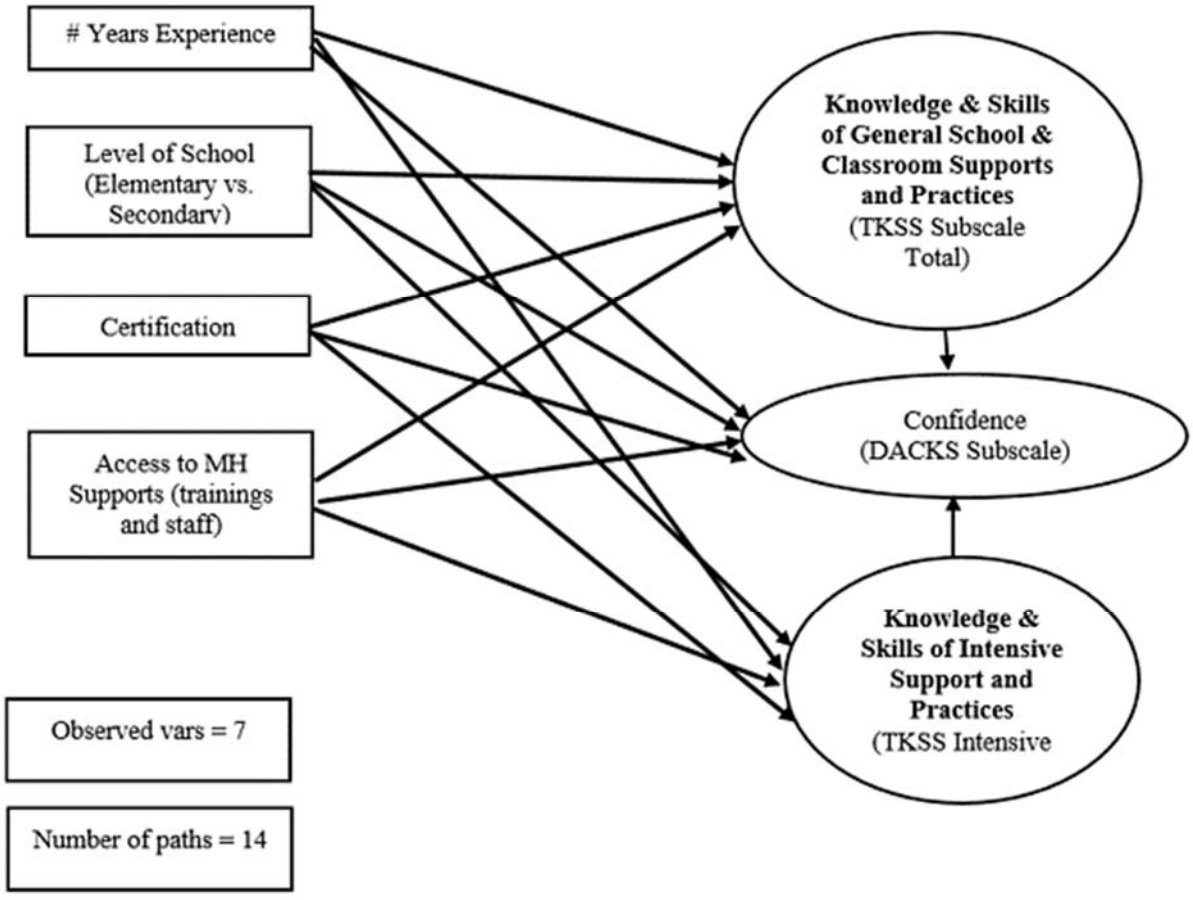
Summary

Problem Statement

Gaining a deeper understanding of current teachers' knowledge and comfort with mental health disorders is a significant step towards extending needed mental health services for children and adolescents in public school settings. Teachers who have adequate knowledge and understanding of the manifestations of mental health conditions, may more frequently take the initial steps required for early identification and intervention with students. Research in this area is needed to understand the current state of teachers' knowledge in order to take the next steps in identifying and supporting students with mental health challenges.

As previously discussed, self-efficacy is comprised of multiple facets, including knowledge, skills, and confidence (Bandura, 1993, 1997). Based on the existing literature, it is believed that multiple factors influence teachers' perceived self-efficacy. In particular, individual teacher variables (e.g., years of experience, type of certification), access to mental health professionals, and schoolwide PBS practices are directly related to teachers' knowledge and skills related to general school and classroom supports and practices and intensive support and practices, which in turn influence teachers' confidence. It is proposed to use structural equation modeling (SEM) in order to examine what contextual factors influence teachers' knowledge, skills, and subsequent confidence. The hypothesized model (Figure 1) examines how these variables interact and will be discussed in more detail below.

Figure 1. Hypothesized Model



Research Questions

Research questions include the following:

1. What is teachers' perceived knowledge and skills related to general school and classroom supports and practices? Are there differences in teacher reported knowledge and skills related to general school and classroom supports and practices based on specific demographics, or access to mental health supports (e.g., trainings or staff)? It is hypothesized that teachers' knowledge and skills

will differ according to their certification level, years of service, instructional level (elementary vs. secondary), and their access to mental health related supports (training opportunities and support staff). Furthermore, it is predicted that teachers with more years of experience, teachers who were traditionally certified, teachers with special education certification, and teachers who have greater access to mental health related supports will report higher knowledge and skills on the School and Classroom Supports and Practices subscale.

2. What is teachers' perceived knowledge and skills related to intensive mental health related support and practices? It is hypothesized that teachers' knowledge and skills will differ according to their certification level, years of service, instructional level (elementary vs. secondary), and their access to mental health related supports (training opportunities and support staff). Additionally, it is predicted that teachers with more years of experience, teachers who were traditionally certified, teachers with special education certification, and teachers who have greater access to mental health related supports will report higher knowledge and skills on the Intensive Support and Practices subscale.
3. How confident are teachers in their ability to identify and intervene with students exhibiting various mental health conditions? It is hypothesized that teachers' who report greater knowledge and skills as measured by the TKSS general school and classroom supports and practices and intensive support and practices subscales will, in turn report higher confidence levels as measured by the DACKS confidence subscale.

CHAPTER III

METHODS

The study was a quantitative method cross-sectional design using survey methods. This design represents the most appropriate approach for the project because cross-sectional surveys are useful in assessing practices, attitudes, knowledge and beliefs of a population of interest in order to design appropriate intervention measures. This chapter describes the demographic information of the study participants. Additionally, this chapter describes the procedures that were followed, discusses the materials that were used in the study, and presents the proposed research questions respectively.

Participants

Participant Characteristics

Ultimately, a total of two-hundred and thirty-seven participants agreed to participate in the study; however, only one-hundred and eighty-six provided at least one usable item response. Out of the usable responses, only one-hundred and sixty-five of these participants responded to demographic questions. The majority of the participants were female (n=134, 81.21 %) with only 31 (18.79 %) male participants. Participants predominantly identified themselves as Caucasian/White (70.3%). Other ethnicities represented included African American/Black (12.12 %), Hispanic/Latino (12.12 %), Asian/Pacific Islander (2.42 %), Native American/Indian (0.61 %), or other (2.42 %). (See Table 1, for demographic characteristics of the participants).

Table 1

Participant Demographic Characteristics

	n	%
Gender (n=165)		
Male	31	18.79
Female	134	81.21
Ethnicity (n=165)		
African American/Black	20	12.12
Asian/Pacific Islander	4	2.42
Caucasian/White	116	70.30
Hispanic/Latino	20	12.12
Native American/Indian	1	0.61
Other	4	2.42
Type of Certification		
Traditional Certification	105	63.64
Alternative Certification	56	33.94
Not Applicable or Not Yet Certified	4	2.42
Highest Level of Education (n=165)		
Some College	0	0.00
Bachelor's Degree	58	35.15
Some Graduate Courses	35	21.21
Master's Degree	68	41.21
Doctoral Degree	4	2.42
Current Position (n=165)		
General Education	115	69.70
Special Education	20	12.12
Administrator	1	0.61
General Education Counselor	0	0.00
Mental Health Provider	0	0.00
Other	29	17.58

Regarding certifications, the majority of the participants indicated they pursued traditional certification (63.64 %), some participants reported having alternative

certifications (33.94 %), and a small percentage (2.42 %) of the participants indicated that they either did not hold certifications or were not yet certified.

The majority of the participants reported holding a master's degree (41.21%). The remaining participants indicated having bachelor's degrees (35.15 %), some graduate coursework (21.21 %), or a doctorate degree (2.42 %). Participants identified their current positions as general education teacher (69.7 %), other (17.58 %), special education teacher (12.12 %), or administrator (0.61 %). No general education counselors or mental health providers participated in the present study.

Participants reported an average (or mean) 12.23 years of experience, ranging from 0 to 39 years (See Table 2). Number of certifications held ranged from 1 to 6, with an average (or mean) 2 certifications. On average, participants in the present study reported seeing an average of 88.62 students per day, ranging from 0 to 585. Additionally, participants reported teaching an average of 2.68 subjects, ranging from 1 to 9.

Table 2

Participant Years of Experience, Number of Certifications, Students Seen per Day, and Subjects Taught

	n	Mean	SD	Median	Minimum	Maximum
Years of Experience	165	12.23	8.66	10.00	0.00	39.00
Total Number of Certifications	165	2.16	1.18	2.00	1.00	6.00
Students Seen per Day	158	88.62	83.31	68.50	0.00	585.00
Number of Subjects Taught	162	2.68	2.07	2.00	1.00	9.00

Procedures

Sampling Procedures

An a-priori required sample size was calculated based upon the recommendation that a minimum of five (5) participants are needed for each parameter estimate of the proposed structural equation model (SEM) given the normally distributed data assumption (Bentler, 1995). Based upon these specifications, the recommended minimum sample size required to detect the desired power of 0.80 (Cohen, 1988) and the desired significance level of 0.05 (Preacher & Coffman, 2006) needed for a test of close fit (McCallum, Browne, & Sugawara, 1996) is 70 given the fourteen pathways in the proposed SEM model (see Appendix C). Given the anticipated online survey return rate of 25% (Cook, Heath, & Thompson, 2000), a minimum of 280 surveys needed to be distributed in order to obtain the desired minimum number of participants.

First, the investigator obtained approval from Texas A&M University's Institutional Review Board (IRB). Next, Texas public school teachers were recruited for voluntary participation using the following procedures. Teachers from all grade levels and certifications were invited to participate. Only public school teachers were recruited, additionally teachers were required to be able to read the survey in English in order to participate. No other exclusions were exercised. Participants were offered the opportunity to submit a valid email address following the completion of their survey in order to be entered in a random drawing for ten gift cards. The gift card raffle served as an incentive to participate; ten participants were randomly selected to win a $10 gift card, and participants were informed that not everyone would receive a gift card. Email addresses were kept confidential, and were not stored with the survey responses.

Winners were notified using their provided email addresses and received gift cards electronically. Following the random drawing for gift card recipients, all email addresses were deleted to maintain anonymity of the participants.

The researcher distributed surveys using several different modalities. First, regional service center representatives were sent a recruitment email in an effort at a more widespread distribution. Nine different service center representatives were contacted and the researcher was informed that they did not have current teacher email distribution lists available to share the survey; therefore, this distribution approach was abandoned.

Four different school districts were directly contacted and applications were submitted to each individual district's acting institutional research review boards. Three out of the four districts gave approval for the researcher to conduct research within their district and one failed to respond to the request. Two of the participating districts were located in suburban areas of Central Texas and one participating district was a large urban district in North Texas. The first district initially distributed the recruitment email independently and then allowed the researcher to initiate a follow-up response directly to teachers within the district two weeks later. Within this suburban Central Texas district 1,119 surveys were distributed and 33 chose to participate, yielding a response rate of 2.95 %. The other Central Texas district elected to distribute the survey themselves without including the researcher in the outgoing recruitment email; therefore, the total number of distributions is unknown; therefore, the researcher was unable to calculate the response rate. A total of 36 participants were obtained from this particular district. The largest urban district gave the researcher permission to recruit teachers using email

addresses that were publicly available. Over a period of several months the researcher searched each individual campus' website and sent recruitment emails to 8,317 staff. Within this district 125 chose to participate, yielding a response rate of 1.5%.

Remaining participants were recruited using a snowball method where recruitment emails were forwarded by other participants. Eight of these participants recruited using the snowball method represented 7 additional school districts within Texas. The remaining 47 participants were uncategorized geographically because they chose to omit the name of their current employer.

A link for the questionnaire was included in a recruitment email message. Participants were taken to a web-based survey hosted by Qualtrics. Prior to viewing the survey, participants viewed a consent form; they only had access to the questionnaire if they indicated consent in the first block. Data from surveys did not request or contain any individually identifiable information. At the conclusion of the survey period all data was downloaded and analyzed by the researcher. Data was encrypted and then stored on a flash drive to insure confidentiality.

Participants who were interested in receiving a summary of the study results were offered the opportunity to submit a valid email address to the researcher. Upon completion of the study the researcher emailed the interested participants a summary of the results. After emailing the results all email addresses were deleted to maintain anonymity of the participants.

Materials

Teacher Knowledge and Skills Survey

The Teacher Knowledge and Skills Survey 2.0 (TKSS 2.0; Blum & Cheney, 2009) was used to assess teachers' knowledge and skills related to providing positive behavior supports (PBS), in addition to their perceived skill levels related to exercising effective educational practices with students with emotional and behavioral problems (see Appendix A). This measure consists of 33 items and utilizes a five-point Likert scale ranging from 1 (none of little) to 5 (mastery). Blum and Cheney (2009) previously conducted a confirmatory factor analysis to test the underlying latent constructs of the TKSS. The simplest model conceptualized perceived teacher knowledge and skills into two broad components, one is knowledge and skills of *school and classroom supports and practices* ($\alpha = .92$) and the other knowledge and skills related to *intensive support and practices* ($\alpha = .93$; Blum & Cheney, 2009). Additionally, Blum and Cheney tested a comprehensive model that broke the scale down into five theorized constructs: *specialized behavior supports and practices* ($\alpha = .86$), *targeted intervention supports and practices* ($\alpha = .87$), *school-wide PBS practices* ($\alpha = .86$), *individualized curriculum supports* ($\alpha = .84$), and *positive classroom supports and practices* ($\alpha = .82$). The current study aimed to use the simpler, two-factor model rather than the five-factor model because it specifically collapsed teachers' perceived knowledge and skills into two components, general school and classroom supports and practices and more specific knowledge and skills of intensive support practices. However, initial validation work by Blum and Cheney (2009) did not find strong psychometric support for the two-factor model and it was unknown how the scale would operate given the current study

population. For this reason, I reevaluated the measurement properties of the TKSS for the present study. The prescribed general school and classroom supports and practices subscale consists of the following items: 1-8, 10, 12, 14, 16, 18, 23-24, and 27. The TKSS intensive support and practices subscale consists of the following items: 9, 11, 13, 15, 19-22, 25-26, and 28-33. This survey was estimated to take teachers approximately fifteen to twenty minutes to complete (Blum & Cheney, 2009). This measure has been used in previous studies (e.g., Blum & Cheney, 2009; Cheney & Barringer, 1995).

Demographics, Access, Confidence and Knowledge Survey

The Demographics Access Confidence and Knowledge Survey (DACKS) questionnaire, was developed for the current study (see Appendix B). The questionnaire investigates teachers' characteristics, their access to mental health supports, and teachers' confidence when working with students who exhibit mental health concerns. Demographic items include educational level (graduate or undergraduate; item 4), position (e.g., general education, special education; item 1), certification type (items 5-6), and years of experience (item 10). The access items include questions regarding teachers' previous trainings specific to student mental health (items 12-13), campus effectiveness in managing emotional-behavioral interventions (item 14), continuum of available student mental-health supports (item 15), and access to mental health professionals (items 16-18). The access to mental health professionals and sources of information questions will be used to determine where teachers receive information about student mental health and how they would prefer to receive support and consultation (items 16-18). Choices included support staff, administrators, school counselors, Licensed Specialists in School Psychology (LSSPs), and web-based sources.

These questions were used to determine whether or not teachers have adequate access to mental health professionals in their schools when needed. Confidence items were intended to extend the information gained from the TKSS (Blum & Cheney, 2009) assessing teachers' confidence in their ability to identify and intervene with students exhibiting various mental health conditions (items 19-27). A 5-point Likert scale, with 1 representing strongly disagree and 5 representing strongly agree was used for the confidence items. This entire segment of the survey was estimated to take teachers approximately 10 minutes to complete.

Prior to distribution, a pilot study was conducted for the DACKS using five current classroom teachers. The purpose of the pilot study was to consider the language and content of the survey and provide recommendations for modifications. Additionally, data on the amount of time to complete the survey was collected. Pilot test respondents indicated the survey took between 5 and 10 minutes to complete. Feedback was given for rewording some items and choices.

CHAPTER IV

RESULTS

Analytic Strategy

The analytic strategy for this study consisted of three steps: (1) descriptive statistics, (2) psychometric evaluation, and (3) testing of the theoretical model. In step 1, descriptive statistics (means, medians, standard deviations, etc.) were computed for all of the items from the TKSS and DACKS confidence scales. In step 2, the psychometric properties of both the TKSS and DACKS confidence scales (e.g., was there empirical evidence supporting that the items from these scales measure the intended constructs?) used in the theoretical model were assessed. This step was important because the structure and appropriateness of the two-factor TKSS for the present study was unknown. Exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) models were used to select empirically-supported TKSS items measuring latent constructs central to my theoretical model. For the DACKS Confidence scale, CFA models were used to select the final item set. For each the final scales, Cronbach's alpha estimates were provided as an estimate of reliability. Finally, in step 3, I used structural equation modeling (SEM) to test the theoretical model (See Figure 2). Step 2 builds on Step 3 by looking at predictors (e.g., years of experiences, number of mental health resources, etc.) on the latent (unobserved) constructs derived in Step 2.

Data were managed and descriptive statistics were computed using SAS 9.3. All statistical models fitted in Step 2 and Step 3 were fitted in Mplus 7.2 using maximum

likelihood estimation with chi-square test statistics and standard errors that are robust to non-normality (MLR, Muthén and Muthén, 2012; Yuan and Bentler, 2000). MLR is a full information estimation technique that assumes data are missing at random (MAR) (Little & Rubin, 1987). The EFA models fitted in Step 2 used an oblique geomin rotation. For the fitted CFAs and SEMs, cutoff values suggested by Hu and Bentler (1999) were used for helping to define "good" model fit: Comparative Fit Index (CFI) ≥ .95, Tucker Lewis Index (TLI) ≥ .95, Root Mean Square Error of Approximation (RMSEA) ≤ .06. However, other widely used "rules of thumb" suggest less stringent model fit criteria: RMSEA < .08, CFI/TLI > .9. All available data were used to estimate the statistical models fitted in Step 2 and Step 3. Because of the patterns of missing data in the current study (subjects missing demographics that were captured at the end of the survey), it was not possible to evaluate whether or not missing data differed across demographic groups.

Descriptive Statistics

Tables 3 and 4 show the descriptive statistics for candidate TKSS and DACKS confidence items. The items showed differences in average level and variability across the two scales.

Table 3

Descriptive statistics for 33 TKSS items

#	Item	Mean	SD	Med	Mode	Min	Max
1	I know our school's programs on the prevention of behavior problems	3.45	1.02	4.00	4.00	1.00	5.00
2	I understand the role and function of our school-wide discipline team	3.38	1.10	4.00	4.00	1.00	5.00
3	I know our goals and objectives for the school-wide discipline program	2.92	1.19	3.00	4.00	1.00	5.00
4	I know our school's system for screening behavior problems	2.61	1.30	2.00	1.00	1.00	5.00
5	I know how to access pre-referral assistance teams	2.55	1.31	3.00	1.00	1.00	5.00
6	I know how to access/use our school's counseling programs	3.53	1.21	4.00	4.00	1.00	5.00
7	I know the influence of cultural/ethnic variables on student behavior	3.75	1.11	4.00	4.00	1.00	5.00
8	I know our school's programs used for social/emotional development	3.13	1.27	3.00	4.00	1.00	5.00
9	I know a range of community services for students with EBDs	2.66	1.27	3.00	3.00	1.00	5.00
10	I know our school's discipline process (e.g., referral procedures)	3.43	1.22	4.00	4.00	1.00	5.00
11	I know what FBAs are and how they are used to develop BIPs	2.87	1.39	3.00	3.00	1.00	5.00
12	I know how our school-wide discipline team uses data for evaluation	2.34	1.33	2.00	1.00	1.00	5.00
13	Knowledge of how to support students with EBDs in general education	3.25	1.29	3.00	3.00	1.00	5.00
14	I know our school's crisis intervention plan for emergency situations	3.01	1.33	3.00	3.00	1.00	5.00
15	Approaches for helping students solve social/interpersonal problems	3.43	1.06	3.00	3.00	1.00	5.00
16	Methods for teaching the school-wide expectations/social skills	3.37	1.24	3.00	4.00	1.00	5.00
17	Methods for reinforcing the use of expectations and social skills	3.64	1.12	4.00	4.00	1.00	5.00
18	Strategies for improving family-school partnerships	2.93	1.18	3.00	3.00	1.00	5.00
19	Collaborating with the school's assistance team to implement BIPs	2.84	1.33	3.00	3.00	1.00	5.00
20	Collaborating with an IEP team to implement individualized program	3.46	1.27	4.00	5.00	1.00	5.00
21	Evaluating effectiveness of intervention plans	3.16	1.28	3.00	3.00	1.00	5.00
22	Modify curriculum to meet performance levels	3.63	1.17	4.00	4.00	1.00	5.00
23	Selecting and using materials that are culturally responsive	3.31	1.26	3.00	3.00	1.00	5.00
24	Establishing and maintaining a positive classroom environment	4.16	0.87	4.00	4.00	1.00	5.00
25	Identify function of student's behavior problems	3.36	1.17	3.00	4.00	1.00	5.00
26	Using data in decision making of behavior programs	3.21	1.30	3.00	3.00	1.00	5.00
27	Using prompts and cues to remind students of behavior expectations	3.86	1.02	4.00	4.00	1.00	5.00
28	Using self-monitoring to helps students meet behavioral expectations	3.43	1.26	4.00	4.00	1.00	5.00
29	Communicating with parents about a student's behavioral progress	3.61	1.22	4.00	5.00	1.00	5.00
30	Using alternative settings/methods to resolve emotional problems	3.22	1.27	3.00	4.00	1.00	5.00
31	Methods for deescalating social and emotional problems	3.36	1.12	3.00	4.00	1.00	5.00
32	Methods for enhancing interpersonal relationships of students	3.27	1.20	3.00	4.00	1.00	5.00
33	Linking family members to needed services in the school	2.77	1.32	3.00	3.00	1.00	5.00

Note: Item responses ranged from 1 = None or little to 5=Mastery. TKSS = Teacher Knowledge and Skills Survey; SD = Standard deviation; Med = Median; Min = Minimum; Max = Maximum *Reprinted with permission from "The validity and reliability of the Teacher Knowledge and Skills Survey for Positive Behavior Support" by Blum, C., & Cheney, D., (2009). *Teacher Education and Special Education, 32*, 239-256, 2009 by D. Cheney.

Table 4

Descriptive Statistics for DACKS Confidence Scale Items

Label	Item	Mean	SD	Med	Mode	Min	Max
DACKS19	I feel confident in my ability to recognize students who exhibit externalizing disorders	3.99	0.91	4.00	4.00	1.00	5.00
DACKS20	I know at least two or more evidence-based interventions designed to address student externalizing disorders	3.66	1.15	4.00	4.00	1.00	5.00
DACKS21	I feel confident in my ability to provide interventions designed to address student externalizing disorders	3.72	1.04	4.00	4.00	1.00	5.00
DACKS22	I feel confident in my ability to recognize students who exhibit internalizing mental health concerns	3.69	1.03	4.00	4.00	1.00	5.00
DACKS23	I know at least two or more evidence-based practices designed to address student internalizing mental health concerns	3.25	1.10	3.00	4.00	1.00	5.00
DACKS24	I feel confident in my ability to provide interventions for students with internalizing mental health concerns	3.51	1.06	4.00	4.00	1.00	5.00
DACKS25	I feel confident in my ability to recognize students who exhibit other mental health problems	3.52	1.13	4.00	4.00	1.00	5.00
DACKS26	I feel confident in my ability to provide interventions for students with other mental health concerns	3.07	1.20	3.00	4.00	1.00	5.00
DACKS27	I feel confident in my ability to recognize suicide risk factors	3.66	0.98	4.00	4.00	1.00	5.00
DACKS28	I feel confident in my ability to talk with students who might be suicidal	3.33	1.20	4.00	4.00	1.00	5.00

Note: Item responses ranged from 1= Strongly disagree to 5= Strongly agree. DACKS = Demographics, Access, Confidence, and Knowledge Survey, Med = Median, Min = Minimum, Max = Maximum

Psychometric Evaluation

TKSS Psychometric Evaluation

Initially, a comprehensive psychometric evaluation of the TKSS scale was conducting utilizing exploratory factor analysis (EFA) using all available data. Table 5 shows a list of the full set of items along with the three-factor EFA solution (Table 6 shows factor correlations). The EFA was estimated using an oblique geomin rotation. Figure 2 displays the scree plot that showed clear support for a three-factor solution. Further examination of the three-factor solution showed that Factor 1 related to General TKSS items and Factor 2 related to Individualized TKSS items, while Factor 3 was not interpretable (it seemed to capture residual item relations). Based upon these findings, the first two factors and 20 candidate items were selected (5 General, 15 Individualized). Next, items were evaluated in consideration for the confirmatory factor analysis (CFA) based on the following criteria: 1) item had a loading of at least .4 on the given factor and 2) item did not crossload onto any other factors (i.e., loadings less than .2 on other factors).

Table 5

TKSS Item Set and Three Factor EFA Solution

Item Label	Item	Factor 1	Factor 2	Factor 3
TKSS1	I know our school's programs on the prevention of behavior problems	**0.78**	0.04	-0.01
TKSS2	I understand the role and function of our school-wide discipline team	**0.86**	-0.01	-0.11
TKSS3	I know our goals and objectives for the school-wide discipline program	**0.78**	-0.07	0.11
TKSS4	I know our school's system for screening behavior problems	**0.66**	-0.01	0.34
TKSS5	I know how to access pre-referral assistance teams	**0.48**	0.00	0.32
TKSS6	I know how to access/use our school's counseling programs	**0.41**	0.16	0.11
TKSS7	I know the influence of cultural/ethnic variables on student behavior	0.19	**0.52**	0.04
TKSS8	I know our school's programs used for social/emotional development	**0.67**	0.03	0.20
TKSS9	I know a range of community services for students with EBDs	0.24	0.29	**0.42**
TKSS10	I know our school's discipline process (e.g., referral procedures)	**0.63**	0.27	-0.02
TKSS11	I know what FBAs are and how they are used to develop BIPs	0.25	**0.48**	0.25
TKSS12	I know how our school-wide discipline team uses data for evaluation	**0.58**	0.01	**0.45**
TKSS13	Knowledge of how to support students with EBDs in general education	0.24	**0.68**	-0.02
TKSS14	I know our school's crisis intervention plan for emergency situations	**0.48**	0.24	0.07
TKSS15	Approaches for helping students solve social/interpersonal problems	0.11	**0.76**	0.05
TKSS16	Methods for teaching the school-wide expectations/social skills	**0.43**	**0.46**	-0.03
TKSS17	Methods for reinforcing the use of expectations and social skills	0.17	**0.70**	-0.06
TKSS18	Strategies for improving family-school partnerships	0.09	**0.41**	**0.46**
TKSS19	Collaborating with the school's assistance team to implement BIPs	**0.42**	0.33	0.24
TKSS20	Collaborating with an IEP team to implement individualized program	0.11	**0.69**	0.00
TKSS21	Evaluating effectiveness of intervention plans	-0.01	**0.77**	0.12
TKSS22	Modify curriculum to meet performance levels	0.03	**0.85**	-0.14
TKSS23	Selecting and using materials that are culturally responsive	0.08	**0.82**	-0.17
TKSS24	Establishing and maintaining a positive classroom environment	-0.02	**0.79**	-0.23
TKSS25	Identify function of student's behavior problems	0.00	**0.88**	-0.03

Table 5 Continued

Item Label	Item	Factor 1	Factor 2	Factor 3
TKSS26	Using data in decision making of behavior programs	-0.04	**0.85**	0.10
TKSS27	Using prompts and cues to remind students of behavior expectations	-0.01	**0.85**	-0.10
TKSS28	Using self-monitoring to helps students meet behavioral expectations	-0.09	**0.85**	0.06
TKSS29	Communicating with parents about a student's behavioral progress	-0.04	**0.73**	0.10
TKSS30	Using alternative settings/methods to resolve emotional problems	-0.03	**0.77**	0.07
TKSS31	Methods for deescalating social and emotional problems	0.02	**0.82**	0.02
TKSS32	Methods for enhancing interpersonal relationships of students	0.02	**0.74**	0.14
TKSS33	Linking family members to needed services in the school	-0.02	**0.48**	**0.54**

Note: Loadings greater than .4 are bolded. General knowledge candidate items loadings are bold in the Factor 1 column and Individualized candidate items are bold in the Factor 2 column. TKSS = Teacher Knowledge and Skills Survey; EFA = Exploratory Factor Analysis.

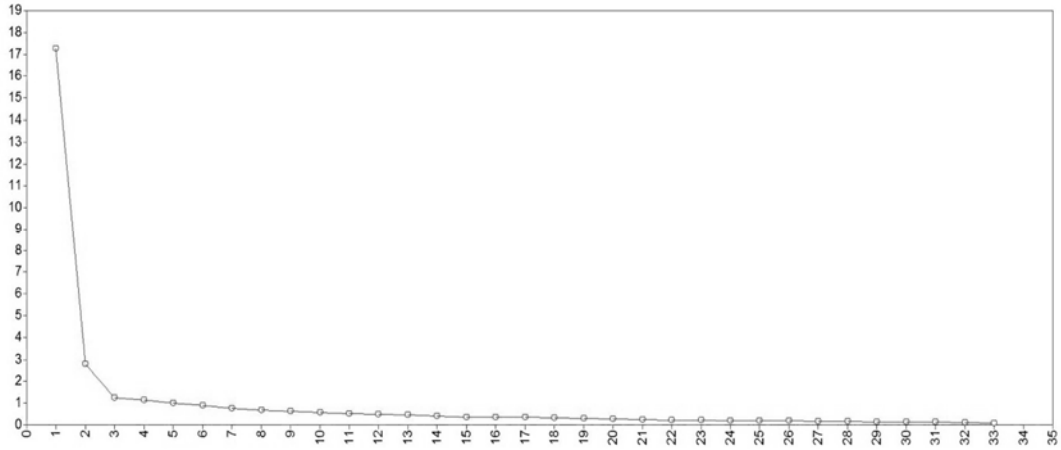
Table 6

Factor Correlations from Three Factor EFA Solution

	General	Individualized	Factor 3
Factor 1	1.00		
Factor 2	.52	1.00	
Factor 3	.20	.47	1.00

Note: EFA = Exploratory Factor Analysis.

Figure 2. Scree Plot for TKSS EFA



Note: TKSS = Teacher Knowledge and Skills Survey; EFA = Exploratory Factor Analysis.

TKSS General Factor: Confirmatory Factor Analysis. To refine the TKSS General Factor item set, initially the fit of a unidimensional CFA was assessed using all 5 candidate items from the EFA results. Next, the item set was refined based on model fit, modification indices, and qualitative examination of item content. Table 7 shows the abbreviated results for the single factor TKSS General CFA model. Model 1a shows

that the initial 5 item single factor CFA did not fit the data well; $\chi^2(5)=19.39$, p=.002, RMSEA=.13, CFI=.94, TLI=.88. Investigation of the modification indices in conjunction with substantive interpretations suggested that item TKSS6 was problematic because of residual relations, in particular with item TKSS8. For this reason (in addition to its lower factor loading), TKSS6 was dropped and the model was re-estimated (Model1b), which resulted in good model fit and strong factor loadings; $\chi^2(2)=1.44$, p=.49, RMSEA=.00, CFI=1.00, TLI=1.01. In conclusion, the full item General TKSS item set was reduced from 5 to 4 items.

Table 7

Standardized Factor Loadings and CFA TKSS General Model Fit for Model 1a and Model 1b

	Model 1a				Model 1b			
	Est.	SE	Test Stat.	P-value	Est.	SE	Test Stat.	P-value
TKSS1	0.85	0.03	27.07	<.001	0.86	0.03	27.51	<.001
TKSS2	0.84	0.04	23.95	<.001	0.86	0.03	26.23	<.001
TKSS3	0.76	0.05	16.29	<.001	0.74	0.05	15.85	<.001
TKSS6	0.46	0.07	6.66	<.001	-	-	-	-
TKSS8	0.69	0.05	14.75	<.001	0.66	0.05	13.66	<.001
Model Fit	$\chi^2(5)=19.39$, p=.002 RMSEA=.13 CFI=.94 TLI=.88				$\chi^2(2)=1.44$, p=.49 RMSEA=.00 CFI=1.00 TLI=1.01			

Note: TKSS = Teacher Knowledge and Skills Survey; CFA = Confirmatory Factor Analysis; Est = Estimate; SE=Standard Error; RMSEA = Root Mean Square Error of Approximation; CFI = Comparative Fit Index; TLI = Tucker Lewis Index.

TKSS Individualized Factor: Confirmatory Factor Analysis. Next, to refine the TKSS Individualized factor item set, the fit of a unidimensional CFA using all 15 candidate items from the EFA results was assessed. The item set was then refined based on model fit, modification indices, and qualitative examination of item content. Table 8 shows the abbreviated CFA model results. Model 2a shows that the initial 15 item, single factor CFA did not fit the data well; $\chi^2(90)=213.54$, $p<.001$, RMSEA=.09, CFI=.93, TLI=.91. Investigation of the modification indices with qualitative examination of item content suggested that three items (TKSS15, TKSS23, and TKSS28) were potentially problematic because of residual relations. Based on these findings, these three items were conservatively dropped and the model was re-estimated (Model 2b), which resulted in an acceptable model fit $\chi^2(54)=90.54$, $p=.001$, RMSEA=.06, CFI=.97, TLI=.96.

Table 8

Standardized Factor Loadings and CFA TKSS Individualized Model Fit for Model 2a and Model 2b

	Model 2a				Model 2b			
	Est.	SE	Test Stat.	P-value	Est.	SE	Test Stat.	P-value
TKSS7	0.65	0.05	12.20	<.001	0.64	0.06	11.40	<.001
TKSS15	0.84	0.03	29.75	<.001	-	-	-	-
TKSS17	0.75	0.04	16.81	<.001	0.73	0.05	15.47	<.001
TKSS20	0.74	0.05	16.15	<.001	0.74	0.05	16.06	<.001
TKSS21	0.82	0.03	27.46	<.001	0.83	0.03	27.88	<.001
TKSS22	0.79	0.03	23.72	<.001	0.78	0.04	22.33	<.001
TKSS23	0.77	0.04	20.21	<.001	-	-	-	-
TKSS25	0.87	0.02	46.07	<.001	0.88	0.02	45.19	<.001
TKSS26	0.87	0.02	43.18	<.001	0.88	0.02	42.29	<.001
TKSS27	0.80	0.03	24.41	<.001	0.80	0.03	24.77	<.001
TKSS28	0.83	0.04	22.96	<.001	-	-	-	-
TKSS29	0.76	0.04	20.57	<.001	0.77	0.04	20.57	<.001
TKSS30	0.80	0.04	18.15	<.001	0.80	0.04	18.21	<.001
TKSS31	0.85	0.03	30.26	<.001	0.85	0.03	28.53	<.001
TKSS32	0.83	0.03	27.26	<.001	0.82	0.03	26.08	<.001
Model Fit	$\chi^2(90)=213.54$, p<.001 RMSEA=.09 CFI=.93 TLI=.91				$\chi^2(54)=90.54$, p=.001 RMSEA=.06 CFI=.97 TLI=.96			

Note: Est = Estimate, Stat. = Statistic; SE=Standard Error; TKSS = Teacher Knowledge and Skills Survey; CFA = Confirmatory Factor Analysis; Est = Estimate; SE = Standard Error; RMSEA = Root Mean Square Error of Approximation; CFI = Comparative Fit Index; TLI = Tucker Lewis Index.

TKSS General and Individualized Factors: Confirmatory Factor Analysis. Finally, the two-factor TKSS CFA model was evaluated based on the final 16 items (4 TKSS General; 12 TKSS Individualized). Results from the revised two-factor CFA model showed good model fit; $\chi^2(103)=144.20$, p=.005, RMSEA=.05, CFI=.97, TLI=.97. These results demonstrate that the published factor structure (TKSS 2.0; Blum & Cheney, 2009) for the full 33 TKSS item set was not empirically supported using data from the present study.

Lastly, the Pearson correlations, means, standard deviations, and Cronbach's alpha estimates were calculated for the revised scales. The TKSS revised General factor item scale yielded a Cronbach's alpha of .85 (see Table 9) and the TKSS Individualized factor item scale yielded a Cronbach's alpha score of .95 (see Table 10). Results indicate that both scales have relatively good reliability.

Table 9

Descriptive Statistics for the TKSS General Item Set

	TKSS1	TKSS2	TKSS3	TKSS8
TKSS1	1.00			
TKSS2	0.74	1.00		
TKSS3	0.61	0.65	1.00	
TKSS8	0.59	0.54	0.50	1.00
N	184	185	184	184
MEAN	3.45	3.38	2.92	3.13
STD	1.02	1.10	1.19	1.27
Cronbach's Alpha	.85			

Note: TKSS = Teacher Knowledge and Skills Survey; STD = Standard Deviation.

Table 10

Descriptive Statistics for the TKSS Individualized Item Set

	TKSS7	**TKSS17**	**TKSS20**	**TKSS21**	**TKSS22**	**TKSS25**	**TKSS26**	**TKSS27**	**TKSS29**	**TKSS30**	**TKSS31**	**TKSS32**
TKSS7	1.00											
TKSS17	0.58	1.00										
TKSS20	0.53	0.54	1.00									
TKSS21	0.54	0.59	0.68	1.00								
TKSS22	0.54	0.62	0.68	0.66	1.00							
TKSS25	0.56	0.64	0.60	0.75	0.67	1.00						
TKSS26	0.52	0.60	0.64	0.77	0.67	0.80	1.00					
TKSS27	0.42	0.57	0.62	0.64	0.60	0.70	0.70	1.00				
TKSS29	0.50	0.51	0.59	0.59	0.54	0.64	0.69	0.66	1.00			
TKSS30	0.46	0.54	0.53	0.60	0.64	0.69	0.71	0.68	0.68	1.00		
TKSS31	0.57	0.64	0.60	0.67	0.65	0.70	0.71	0.67	0.66	0.72	1.00	
TKSS32	0.53	0.60	0.57	0.67	0.58	0.72	0.72	0.64	0.62	0.68	0.76	1.00
N	183	164	166	165	166	163	165	166	166	166	163	165
MEAN	3.75	3.64	3.46	3.16	3.63	3.36	3.21	3.86	3.61	3.22	3.36	3.27
STD	1.11	1.12	1.27	1.28	1.17	1.17	1.30	1.02	1.22	1.27	1.12	1.20
Cronbach's Alpha	.95											

Note: TKSS = Teacher Knowledge and Skills Survey; STD = Standard Deviation.

DACKS Psychometric Evaluation

DACKS Confidence: Confirmatory Factor Analysis

Initially, the fit of unidimensional CFA was assessed using all 10 proposed items to refine the DACKS Confidence item set. Subsequently the item set was refined based on model fit, modification indices, and qualitative examination of item content. Table 11 shows the abbreviated results for the single factor DACKS Confidence CFA models. Model 3a shows that the CFA fitted to the full 10 proposed items did not fit the data well; $\chi^2(35)=147.89$, $p<.001$, RMSEA=.14, CFI=.87, TLI=.83. Investigating of the modification indices in conjunction with substantive interpretations suggested that four items (DACKS21, DACKS23, DACKS26, and DACKS27) demonstrated suboptimal psychometric properties such as residual correlations. After dropping these four items, the modified CFA fit the data well (Model 3b); $\chi2(9)=11.85$, $p=.22$, RMSEA=.04, CFI=.99, TLI=.99. Therefore, the full 10 item set was reduced to 6 items. The revised DACKS confidence item scale yielded a Cronbach's alpha of .88 (see Table 12), which indicates good internal consistency.

Table 11

Standardized Factor Loadings and CFA DACKS Confidence Model Fit for Model 3a and Model 3b

	Model 3a				Model 3b			
	Est.	SE	Test Stat.	P-value	Est.	SE	Test Stat.	P-value
DACKS19	0.77	0.04	18.65	<.001	0.81	0.04	20.32	<.001
DACKS20	0.80	0.04	20.54	<.001	0.78	0.04	17.57	<.001
DACKS21	0.79	0.04	19.39	<.001	-	-	-	-
DACKS22	0.80	0.03	23.46	<.001	0.81	0.04	23.30	<.001
DACKS23	0.81	0.03	23.66	<.001	-	-	-	-
DACKS24	0.77	0.04	20.15	<.001	0.74	0.04	17.23	<.001
DACKS25	0.79	0.04	22.53	<.001	0.79	0.04	21.70	<.001
DACKS26	0.84	0.03	32.35	<.001	-	-	-	-
DACKS27	0.58	0.06	9.43	<.001	-	-	-	-
DACKS28	0.59	0.06	9.56	<.001	0.56	0.06	8.76	<.001
Model Fit	$\chi^2(35)=147.89$, p<.001 RMSEA=.14 CFI=.87 TLI=.83				$\chi^2(9)=11.85$, p=.22 RMSEA=.04 CFI=.99 TLI=.99			

Note: Est = Estimate, SE = Standard Error; CFA = Confirmatory Factor Analysis; DACKS = Demographics, Access, Confidence, and Knowledge Survey; Est = Estimate; SE = Standard Error; RMSEA = Root Mean Square Error of Approximation; CFI = Comparative Fit Index; TLI = Tucker Lewis Index.

Table 12

Descriptive Statistics for the DACKS Confidence Items

	DACKS19	**DACKS20**	**DACKS22**	**DACKS24**	**DACKS25**	**DACKS28**
DACKS19	1.00					
DACKS20	0.66	1.00				
DACKS22	0.65	0.61	1.00			
DACKS24	0.60	0.59	0.61	1.00		
DACKS25	0.62	0.64	0.69	0.54	1.00	
DACKS28	0.48	0.37	0.43	0.50	0.43	1.00
N	163	163	162	162	161	162
MEAN	3.99	3.66	3.69	3.51	3.52	3.33
STD	0.91	1.15	1.03	1.06	1.13	1.20
Cronbach's Alpha	.88					

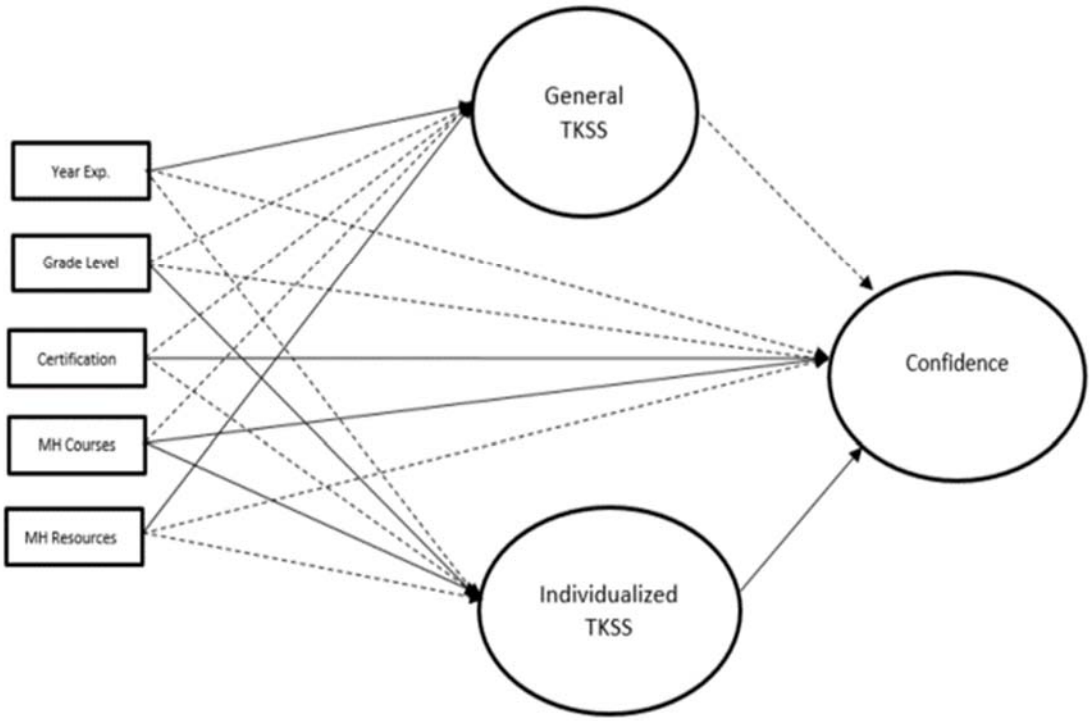
Note: DACKS = Demographics, Access, Confidence, and Knowledge Survey; STD = Standard Deviation.

Testing the Theoretical Model Using SEM

In Step 3, a theoretical model that highlights predictors of the TKSS and DACKS latent constructs derived in Step 2 using structural equation modeling (Figure 3) was tested. Model fit statistics suggested that the SEM provided acceptable fit to the data; $\chi^2(339)=494.84$, RMSEA=.05, CFI=.93, TLI=.92. Table 13 provides the unstandardized and standardized results for the predictor effects of substantive interest, Table 14 provides results regarding the measurement portion of the SEM (e.g., item factor loadings, intercepts, and residual variances), and Table 15 provides results relating to the variances/covariance for the latent factors along with their respective *r*-square estimates. Additional specific analyses results are discussed by research question. Latent factors included individualized student supports and practices knowledge, general behavior

programming knowledge, and confidence in mental health programming implementation.

Figure 3. Simplified Path Diagram of SEM Results for Theoretical Model



Notes: n =157 subjects. Solid lines represent statistically significant effects ($p<.05$). Dotted lines represented statistically non-significant effects ($p\geq.05$). Model fit statistics: $\chi^2(339)=494.84$, RMSEA=.05, CFI=.93, TLI=.92. SEM = Structural Equation Model; RMSEA = Root Mean Square Error of Approximation; CFI = Comparative Fit Index; TLI = Tucker Lewis Index.

Research Questions Analyzed

Research Question 1. What is teachers' perceived knowledge and skills related to general school and classroom supports and practices? It was hypothesized that

teachers' knowledge and skills would differ according to their certification level, years of service, instructional level (elementary vs. secondary), and their access to mental health related supports (training opportunities and support staff). Furthermore, it was predicted that teachers with more years of experience, teachers with traditional certifications, teachers with special education certification, and teachers who have greater access to mental health related supports would report higher knowledge and skills on the General TKSS item set.

Table 13 shows that both years of experience and the number of resources available were statistically significant predictors of general school-wide programming for behavior, discipline, and social emotional development ($p<.05$ for both effects). Specifically, having more experience and increased mental health related resources was associated with increased general behavior programming knowledge. The estimated r-square value showed that 20% of the variability in general emotional-behavioral programming knowledge was explained by the predictors (see Table 15). However, results from the present study did not indicate that either certification level, reported instructional level, or certification type were associated with higher scores on the general emotional-behavior programming knowledge factor.

Table 13

SEM Results for Structural Paths – Unstandardized and Standardized

	Unstandardized				Standardized			
	Est.	SE	Z	P	Est.	SE	Z	P
TKSS General on								
Experience (years)	0.03	0.01	3.33	.001	0.29	0.08	3.50	<.001
Grade 5-8 (ref=Other)	-0.15	0.23	-0.66	0.51	-0.19	0.28	-0.66	0.51
Grade 9-12 (ref=Other)	-0.39	0.24	-1.64	0.10	-0.48	0.28	-1.70	0.09
Grade Preschool/Elementary (ref=Other)	-0.19	0.21	-0.86	0.39	-0.23	0.26	-0.87	0.38
MH College Courses	0.14	0.09	1.61	0.11	0.14	0.09	1.58	0.11
Number of Resources	0.14	0.04	3.88	<.001	0.32	0.08	4.10	<.001
Traditional Certification (ref=Other)	-0.02	0.15	-0.16	0.87	-0.03	0.18	-0.16	0.87
TKSS Individual on								
Experience (years)	0.01	0.01	1.03	0.30	0.08	0.08	1.06	0.29
Grade 5-8 (ref=Other)	-0.16	0.18	-0.91	0.37	-0.23	0.25	-0.90	0.37
Grade 9-12 (ref=Other)	-0.49	0.19	-2.60	0.01	-0.68	0.26	-2.62	0.01
Grade Preschool/Elementary (ref=Other)	-0.26	0.18	-1.50	0.13	-0.36	0.24	-1.49	0.14
MH College Courses	0.28	0.07	3.93	<.001	0.32	0.07	4.32	<.001
Number of Resources	0.04	0.03	1.16	0.25	0.10	0.08	1.17	0.24
Traditional Certification (ref=Other)	-0.09	0.12	-0.77	0.44	-0.13	0.17	-0.78	0.44
Confidence on								
Experience (years)	0.00	0.01	-0.65	0.51	-0.04	0.07	-0.66	0.51
Grade 5-8 (ref=Other)	0.04	0.14	0.30	0.76	0.06	0.19	0.30	0.76
Grade 9-12 (ref=Other)	0.10	0.15	0.63	0.53	0.13	0.21	0.62	0.53
Grade Preschool/Elementary (ref=Other)	0.07	0.13	0.51	0.61	0.09	0.18	0.51	0.61
MH College Courses	0.20	0.06	3.46	.001	0.22	0.06	3.57	<.001
Number of Resources	0.01	0.02	0.31	0.76	0.02	0.05	0.31	0.76
Traditional Certification (ref=Other)	-0.17	0.08	-2.05	0.04	-0.23	0.11	-2.05	0.04
TKSS General	-0.02	0.08	-0.30	0.77	-0.03	0.09	-0.30	0.77
TKSS Individualized	0.78	0.11	6.97	<.001	0.78	0.08	9.33	<.001

Note: SEM = Structural Equation Modeling; TKSS = Teacher Knowledge and Skills Survey; Est.=Estimate; SE=Standard Error; Z=z-value; P = p-value. n=157 subjects. Model fit statistics: $\chi^2(339)=494.84$, RMSEA=.05, CFI=.93, TLI=.92. Mental Health (MH) College Courses was coded as 0=0 courses, 1=1-2 courses, and 2=3+ courses. Latent factors were scaled by setting the fixing the factor loading for the first item for each factor at 1 and estimating the latent factor variance.

Table 14

Unstandardized SEM Results for Factor Loadings, Intercepts, and Residual Variances.

		Factor Loadings				Intercepts				Residual Variances			
		Est.	SE	Z	P	Est.	SE	Z	P	Est.	SE	Z	P
General TKSS	TKSS1	1.00	-	-	-	2.54	0.29	8.86	<.001	0.29	0.05	5.32	<.001
	TKSS2	1.08	0.09	12.60	<.001	2.41	0.31	7.69	<.001	0.37	0.07	5.17	<.001
	TKSS3	1.05	0.12	9.17	<.001	1.92	0.33	5.79	<.001	0.68	0.11	6.41	<.001
	TKSS8	1.07	0.09	11.32	<.001	2.18	0.33	6.67	<.001	0.87	0.13	6.61	<.001
Individualized TKSS	TKSS7	1.00	-	-	-	3.45	0.25	13.68	<.001	0.67	0.11	6.44	<.001
	TKSS17	1.14	0.11	9.97	<.001	3.37	0.29	11.82	<.001	0.56	0.09	6.36	<.001
	TKSS20	1.30	0.15	8.55	<.001	3.13	0.32	9.67	<.001	0.75	0.11	6.74	<.001
	TKSS21	1.48	0.16	9.28	<.001	2.80	0.36	7.78	<.001	0.47	0.07	7.16	<.001
	TKSS22	1.27	0.14	9.25	<.001	3.29	0.32	10.32	<.001	0.56	0.08	7.29	<.001
	TKSS25	1.41	0.16	8.96	<.001	2.97	0.35	8.57	<.001	0.34	0.05	7.63	<.001
	TKSS26	1.58	0.18	8.97	<.001	2.79	0.38	7.28	<.001	0.39	0.06	6.93	<.001
	TKSS27	1.10	0.16	7.04	<.001	3.56	0.27	13.05	<.001	0.40	0.05	7.74	<.001
	TKSS29	1.29	0.15	8.59	<.001	3.26	0.32	10.24	<.001	0.64	0.08	7.65	<.001
	TKSS30	1.40	0.18	7.90	<.001	2.85	0.34	8.30	<.001	0.62	0.12	5.15	<.001
	TKSS31	1.33	0.13	9.95	<.001	3.01	0.33	9.21	<.001	0.35	0.06	6.30	<.001
	TKSS32	1.36	0.15	9.14	<.001	2.92	0.33	8.83	<.001	0.48	0.07	7.27	<.001
Confidence	DACKS19	1.00	-	-	-	3.67	0.30	12.32	<.001	0.31	0.06	5.58	<.001
	DACKS20	1.26	0.12	10.50	<.001	3.26	0.36	8.96	<.001	0.45	0.09	5.05	<.001
	DACKS22	1.14	0.10	10.96	<.001	3.32	0.33	10.08	<.001	0.38	0.06	6.70	<.001
	DACKS24	1.10	0.11	9.68	<.001	3.15	0.33	9.49	<.001	0.45	0.07	6.88	<.001
	DACKS25	1.17	0.10	11.68	<.001	3.15	0.34	9.24	<.001	0.52	0.07	7.94	<.001
	DACKS28	0.93	0.13	7.08	<.001	3.02	0.28	10.85	<.001	0.96	0.11	8.73	<.001

Note: SEM = Structural Equation Modeling; TKSS = Teacher Knowledge and Skills Survey; DACKS = Demographics, Access, Confidence, and Knowledge Survey; Est. = Estimate, SE = Standard Error, Z = z-value, P = p-value; RMSEA = Root Mean Square Error of Approximation; CFI = Comparative Fit Index; TLI = Tucker Lewis Index. n=157 subjects. Model fit statistics: $\chi^2(339)=494.84$, RMSEA=.05, CFI=.93, TLI=.92. Latent factors were scaled by setting the fixing the factor loading for the first item for each factor at 1 and estimating the latent factor variance.

Table 15

Unstandardized SEM Results for Latent Factor Residual Covariance and r-square

	Residual Variances				R-Square			
	Est.	SE	Z	P	Est.	SE	Z	P
General TKSS	0.54	0.09	6.36	<.001	0.20	0.06	3.21	<.001
Individualized TKSS	0.43	0.10	4.36	<.001	0.18	0.06	3.27	<.001
Confidence	0.14	0.04	3.45	<.001	0.73	0.05	15.36	<.001
Individualized/General TKSS Covariance	0.30	0.06	4.66	<.001	-	-	-	-

Note: SEM = Structural Equation Modeling; TKSS = Teacher Knowledge and Skills Survey; Est.=Estimate, SE=Standard Error, Z=z-value, P = p-value; RMSEA = Root Mean Square Error of Approximation; CFI = Comparative Fit Index; TLI = Tucker Lewis Index.. n=157 subjects. Model fit statistics: $\chi^2(339)=494.84$, RMSEA=.05, CFI=.93, TLI=.92. Latent factors were scaled by setting the fixing the factor loading for the first item for each factor at 1 and estimating the latent factor variance.

Research Question 2. What is teachers' perceived knowledge and skills related to intensive mental health related support and practices? It was hypothesized that teachers' knowledge and skills would differ according to their certification level, years of service, instructional level (elementary vs. secondary), and their access to mental health related supports (training opportunities and support staff). Also, it was predicted that teachers with more years of experience, teachers with traditional certifications, teachers with special education certification, and teachers who have greater access to mental health related supports would report higher knowledge and skills on the Individualized TKSS item set.

Table 13 shows that Individualized student supports and practices knowledge was predicted by both grade level and number of mental health related college courses (p<.05). Specifically, for grade level, individuals working in grades 9-12 had statistically significantly lower individualized student supports and practices knowledge compared to

those in "other" settings, which included areas such as district-wide and special education ($p<.05$). Pre-school/elementary and grades 5-8 were also lower on Individualized student supports and practices knowledge than this "other" group but these differences failed to reach statistical significance ($p>.05$). Further, having more college mental health courses predicted statistically significantly higher Individualized student supports and practices knowledge ($p<.001$). The estimated r-square value showed that 18% of the variability in Individualized student supports and practices knowledge factor was explained by the predictors in the model (see Table 15). Results from the present study did not indicate that years of experience, certification type, or mental health resources were predictors of higher individualized student supports and practices knowledge factor scores.

Research Question 3. How confident are teachers in their ability to identify and intervene with students exhibiting various mental health conditions? It was hypothesized that teachers' who reported greater knowledge and skills in general emotional-behavioral programming and individualized supports and services would, in turn report higher confidence levels as measured by the DACKS confidence subscale.

Results showed that both number of college mental health courses and Individualized student supports and practices knowledge were statistically significant predictors of Confidence ($p<.01$ for both, see Table 13). Specifically, having more mental health related courses and higher Individualized student supports and practices knowledge and skills predicted increased confidence. Individualized student supports and practices knowledge had a particularly strong association with Confidence. The *r*-square estimate showed that the model explained over 70% of the variability in

Confidence (see Table 15). The present study results did not indicate that general emotional-behavior programming knowledge was a predictor of Confidence. Additionally, years of experience, grade level, and mental health resources did not predict Confidence scores.

CHAPTER V

SUMMARY AND CONCLUSIONS

The goal of this study was to examine the relationship between individual teacher variables, whether or not they directly relate to teachers' knowledge and skills regarding general schoolwide behavioral policies and individualized support and practices, and what influence they exert on teachers' confidence. As hypothesized, both years of experience and the number of resources available were statistically significant predictors of teachers' general or schoolwide behavioral programming knowledge. Results did not demonstrate a statistically significant relationship between certification level, instructional level, or certification type. These results indicate that years of experience or available mental health resources are more reliable predictors of teachers' general or schoolwide behavioral policy knowledge. The general or schoolwide behavioral programming knowledge scale examined teacher knowledge of school behavior prevention programs, knowledge of school-wide discipline programming, and school-wide programs for social emotional support/social emotional learning. One possible explanation for these findings is that experienced teachers have worked within school districts for longer periods of time; therefore, they better understand how to navigate school systems and know what is offered within their district for discipline programming and social-emotional learning. Additionally, it is logical to assume that teachers who work in districts with greater access to mental health related services and supports would better recognize these available supports and services.

Further, as hypothesized, both mental-health related college coursework and assigned grade level predicted teachers' individualized student supports knowledge and skills. Having more college mental health-related coursework was found to account for 18% of the variance within the individualized supports and services scale. This finding further emphasizes the importance of teachers receiving sufficient mental health related coursework in preparation for meeting their responsibility towards safeguarding student mental health. Secondary teachers in grades 9 through 12 reported statistically significantly lower knowledge and skills related to individualized student supports and practices compared to those in "other" settings (district-wide and special education). Likely, these disparities in individualized supports and services knowledge and skills are the result of more training on differentiated instruction (Stormont et al., 2011) or a lower student to teacher ratio (Roeser & Midgley, 1997). Conversely, there was not a significant relationship between years of experience, certification type, or available mental health resources and teachers' individualized student support knowledge and skills. These results suggest that either mental health related coursework or grade level function better as at predicting teacher confidence in implementing individualized student mental health supports.

Lastly, as hypothesized, results demonstrated that teachers with higher individualized support and practices knowledge reported increased confidence in providing mental health interventions. Specifically, individualized student supports knowledge and skills accounted for 73% of the variance in the area of confidence. This finding is consistent with previous research (Franklin et al., 2012; Gibson & Dembo, 1984), demonstrating that teachers with who have greater knowledge of social-emotional

supports and strategies report a stronger sense of self-efficacy. There was not a statistically significant relationship between general programming knowledge and confidence, signifying that individualized student mental health support knowledge, not districtwide behavioral policy knowledge, serves as a more reliable predictor of teachers' confidence related to student mental health support.

Limitations

This study poses some limitations, both practical and theoretical in nature. The study was administered using a survey method which limits generalizability of the results to school districts across school districts and even across state lines. Response rate was limited (less than 2.95%); therefore, this sample may not be representative because it only included individuals who were willing to respond. In terms of representativeness, this study included respondents from various school districts in Texas; however, the number of participants representing one specific urban population far outweighed the number of participants from other districts. Future studies should recruit a more diverse sample of participants from across the state in order to determine whether or not teachers' knowledge, skills, and confidence related to student mental health supports varies across different school settings. Moreover, it is possible that individuals who chose to respond have higher interest in student based mental health, thus skewing the results. In this respect, a larger sample size would result in a more accurate representation of teachers' knowledge, skills, and confidence related to student mental health supports. This may achieved by including a more hands-on approach to recruitment. For the current study, recruitment efforts were limited to emails and contact with district representatives. Future studies may increase their sample size if the

researcher(s) collaborate with school administration as part of a school-wide improvement plan or district-wide research investigation that requires teachers to participate.

A total of 60 questions were included in the survey, a number that exceeded many teachers' willingness to participate. Ultimately, a total of two-hundred and thirty-seven participants agreed to participate in the study; however, only one-hundred and eight-six provided at least one usable response. Additionally, out of the useable responses only one-hundred and sixty-five of these participants responded to demographic questions; thereby nearly cutting the anticipated sample size in half. A simplified version of the survey, containing only items supported by the psychometric evaluation would likely encourage more teachers to complete the survey. Demographic questions did not appear until later in the survey and many respondents stopped responding prior to these items, making it impossible to determine whether participant characteristics influenced missing data. Consequently, demographic questions should be moved to the beginning of the survey to insure they are included in the responses. Also, IRB requirements demanded that survey questions were left open-ended, permitting participants to ignore or skip survey items. Creating a version of the survey prompting a response to all items could create a more complete data set.

Implications

The model pointed to three important factors directly affecting teachers' confidence regarding student mental health identification and services: mental health coursework, grade level, and individualized supports and services knowledge. Because these factors can be influenced through educational strategies, relevant training for teachers should gain priority among student mental health initiatives. Providing teachers with professional development opportunities designed to increase their knowledge and skills related to evidence-based mental health practices will likely result in an increase of their sense of self-efficacy. As pointed out by Bryer and Signorini (2011), methodological and formal instruction in best practices seem to be the only way to decrease the gap in teachers' capacity to effectively support student wellbeing. Moreover, since secondary teachers reported statistically significantly lower knowledge and skills in the area of individualized student supports and services, particular focus should be dedicated to this group of teachers who are more likely to encounter students with suicidal ideation (2013; King, et al., 1999, U.S. Department of Health and Human Services). Focusing on high school teachers, Jorm. Kitchener, Sawyer, Scales, and Cvetkovski (2010) created a youth mental health first aid course, demonstrating that teachers who receive appropriate training demonstrate increased knowledge of mental health issues, confidence in helping students, and confidence in delivering programs. School districts looking for time-efficient ways to increase their teachers' student mental health confidence may need to include this type of targeted professional development opportunity as part of their in-service program.

Teachers could be effective in the implementation of student mental health supports if provided adequate training opportunities; however, they also require appropriate support and supervision from administration and mental health professionals in order to carry out and sustain the interventions (Franklin et al, 2012). One study examining factors that predicted positive behavior supports implementation sustainability factors found that one of the strongest predictors was administrative support (Mathews, McIntosh, Frank, & May, 2014). Emphasizing the need for administrative support at the campus and district-level assures greater likelihood that implementation will be supported through the allocation of resources. Aside from administrative support, consultation from mental health providers also improves outcomes. Cappella and colleagues (2012) demonstrated that teachers receiving structured consultation from mental health professionals may improve student emotional support, which serves to enhance the student-teacher relationship and peer relationships.

Future Directions

Given the shift of classroom focus from academics to mental health, further investigation of teacher factors' influence upon student based mental health supports and services is needed. Furthermore, research incorporating assessments of both teacher and student outcomes in student mental health initiatives is warranted. Additionally, research investigating the most effective and efficient modalities used to enhance teachers' knowledge is needed. Research is needed to know how often teachers may work as a team with mental health professionals in the delivery of mental health interventions. The appropriate dosage of student based mental health consultation needs

should be further investigated in order to determine how the intensive in-classroom consultation significantly enhances program implementation and sustainability.

Conclusion

The analyses yielded several main findings. First, both years of teaching experience and the number of available mental health resources served as reliable predictors of teacher knowledge of general schoolwide behavioral programs. In accordance with previous research, it appears that teachers with more experience have increased capacity to identify available resources (Green et. al., 2008). Second, mental-health related coursework and grade level both predicted teachers' individualized supports knowledge and skills. The mental-health related coursework connection contrasts Stormont and colleagues' (2011) findings, where they found that teacher-reported education as related to emotional and behavioral interventions was not associated with increased knowledge. Third, teachers' individualized supports and services knowledge was predictive of their overall confidence. Consistent with previous research (Franklin et al., 2012; Gibson & Dembo, 1984) teachers with greater knowledge of social-emotional supports and strategies exhibit a stronger sense of self-efficacy while exercising their responsibility for implementing student-based mental health supports.

REFERENCES

Abidin, R. R., & Robinson, L. L. (2002). Stress, biases, or professionalism: What drives teachers' referral judgments of students with challenging behaviors? *Journal of Emotional and Behavioral Disorders, 10*, 204-212.

Baker, J. A., Derrer, R. D., Davis, S. M., Dinklage-Travis, H. E., Linder, D. S., & Nicholson, M. D. (2001). The flip side of the coin: Understanding the school's contribution to dropout and completion. *School Psychology Quarterly, 16,* 406-426.

Baker, J. A., Grant, S., & Morlock, L. (2008). The teacher-student relationship as a developmental context for children with internalizing or externalizing behavior problems. *School Psychology Quarterly, 23*, 3-15. doi: 10.1037/1045-3830.23.1.3

Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist, 28*(2), 117-148.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W. H. Freeman and Company.

Bentler, P. M. (1995). *EQS structural equations program manual*. Encino, CA: Multivariate Software, Inc.

Blum, C., & Cheney, D., (2009). The validity and reliability of the Teacher Knowledge and Skills Survey for positive behavior support. *Teacher Education and Special Education, 32*, 239-256. doi:10.1177/0888406409340013

Burns, B., Costello, E., Angold, A., Tweed, D., Stangl, D., Farmer, E. M., & Erkanli, A. (1995). Children's mental health service use across service sectors. *Health Affairs, 14*, 147–159. doi: 10.1377/hlthaff.14.3.147

Brouwers, A., & Tomic, W. (2000). A longitudinal study of teacher burnout and perceived self-efficacy in classroom management. *Teaching and Teacher Education, 16*(2), 239-253.

Bryer, F., & Signorini, J. (2011). Primary pre-service teachers' understanding of students' internalizing problems of mental health and wellbeing. *Issues in Educational Research, 21*(3). 233-258.

Cappella, E., Hamre, B.K., Kim, H.Y., Henry, D.B., Frazier, S.L., Atkins, M.S., & Schoenwald, S. K. (2012). Teacher consultation and coaching within mental health practice: Classroom and child effects in urban elementary schools. *Journal of Consulting and Clinical Psychology, 80*, 597-610. doi: 10.1037/a0027725

Center for Health and Health Care in Schools. (2014, May). The impact of school-connected behavioral and emotional health interventions on student academic performance. An annotated bibliography of research literature. Washington, DC: Author. Retrieved from http://www.healthinschools.org/en/School-Based-Mental-Health/Revised-Annotated-Bibliography.aspx

Cheney, D., & Barringer, C. (1995). Teacher competence, student diversity, and staff training for the inclusion of middle school students with emotional and behavioral disorders. *Journal of Emotional and Behavioral Disorders, 3*(3), 174-182. doi: 10.1177/106342669500300307

Cheney, D., Blum, C., & Walker, B. (2009). *Teacher Knowledge and Skills Survey for Positive Behavior Support*. Seattle, Washington.

Cheney, D., & Walker, B. (2005). *The BEACONS Project individual positive behavior support self-assessment and program review*. Seattle: University of Washington.

Civil Rights Project. (2000). *Opportunities suspended: The devastating consequences of zero tolerance and school discipline policies.* [Report from a National Summit on Zero Tolerance.] Cambridge, MA: Harvard Civil Rights Project (ERIC Document Reproduction Service No. ED454314)

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd Edition). Hillsdale, NJ: Lawrence Earlbaum Associates.

Cook, C, Heath, F., & Thompson, R. L. (2000). A meta-analysis of response rates in web- or internet-based surveys. *Educational and Psychological Measurement, 60*, 821-836. doi: 10.1177/00131640021970934

Costello, E. J., Egger, H., & Angold, A. (2005). 10-year research update review: The epidemiology of child and adolescent psychiatric disorders: I. methods and public health burden. *The American Academy of Child and Adolescent Psychiatry, 44*(10), 972-986. doi: 10.1097/01.chi.0000172552.41596.6f

Del'Homme, M., Kasari, C., Forness, S. R., & Bagley, R. (1996). Prereferral intervention and students at-risk for emotional or behavioral disorders. *Education & Treatment of Children, 19*, 272–285.

Dodge, K. A., Greenberg, M. T., & Malone, P.S. (2008). Testing an idealized dynamic cascade model of the development of serious violence in adolescence. *Child Development, 79*(6), 1907-1927.

Dodge, K. A., & Pettit, G. S. (2003). A biopsychosocial model for the development of chronic conduct problems in adolescence. *Developmental Psychology, 39*(2), 349-371. doi: 0.1037/0012-1649.39.2.349

Durlak, J. A., & Wells, A. M. (1997). Primary prevention mental health programs for children and adolescents: A meta-analytic review. *American Journal of Community Psychology, 25*(2), 115-152. doi: 0091-0562/97/0400-0115$12.50/0

Durlak, J. A., & Wells, A. M. (1998). Evaluation of indicated preventative intervention (secondary prevention) mental health programs for children and adolescents. *American Journal of Community Psychology, 26*(5), 775-802.

Education of All Handicapped Children Act of 1975, Pub. L. No. 94-142, 20 U.S.C. § 1401 et seq.

Education Code, Texas S. 460 (2013).

Elliott, S. N., Witt, J. C., Galvin, G. A., & Peterson, R. (1984). Acceptability of positive and reductive behavioral interventions: Factors that influence teachers' decisions. *Journal of School Psychology, 22*, 353-360.

Emmer, E. T., & Hickman, J. (1991). Teacher efficacy in classroom management and discipline. *Educational and Psychological Measurement, 51*, 755-765. doi: 10.1177/0013164491513027

Every Student Succeeds Act (ESSA). Pub. L. No. 114-95§ 114 Stat. 1177 (2015-2016).

Forness, S. R., & Kavale, K. A., (2000). Emotional or behavioral disorders: Background and current status of the E/BD terminology and definition. *Behavioral Disorders, 25*(3), 264-269.

Franklin, C.G., Kim, J. S., Ryan, T. N., Kelly, M. S., & Montgomery, K. L. (2012). Teacher involvement in school mental health interventions: A systematic review. *Children and Youth Services Review, 34*, 973-982. doi:10.1016/j.childyouth.2012.01.027

Gibson, S., & Dembo, M. (1984). Teacher efficacy: A construct validation. *Journal of Educational Psychology, 76*, 569–582.

Glover, T. A., & DiPerna, J. C. (2007). Service delivery for response to intervention: Core components and directions for future research. *School Psychology Review, 36,* 526-540.

Graham, A., Phelps, R., Maddison, C., & Fitzgerald, R. (2011). Supporting children's mental health in schools: Teacher views. *Teachers and Teaching, 17*(4), 479-496. http://epubs.scu.edu.au/ccyp_pubs/45/

Grayson, J.L., & Alvarez, H. K. (2008). School climate factors relating to teacher burnout: A mediator model. *Teaching and Teacher Education 24*, 1349-1363. doi:10.1016/j.tate.2007.06.005

Green, M. T., Clopton, J. R., & Pope, A. W. (1996). Understanding gender differences in referral of children to mental health services. *Journal of Emotional and Behavioral Disorders, 4*(3), 182-190. doi: 10.1177/106342669600400305

Green, S. P., Shriberg, D., & Farber, S. L. (2008). What's gender got to do with it? Teachers' perceptions of situation severity and requests for assistance. *Journal of Educational & Psychological Consultation, 18*(4), 346-373. doi: 10.1080/10474410802463288

Greenberg, M. T., Domitrovich, C., & Bumbarger, B. (2001). The prevention of mental disorders in school-aged children: Current state of the field. *Prevention & Treatment, 4*, 1–62.

Greenberg, M. T., Weissberg, R. P., O'Brien, M. U., Zins, J. E., Fredericks, L., Resnik, H., & Elias, M. J. (2003). Enhancing school-based prevention and youth development through coordinated social, emotional, and academic learning. *American Psychologist, 58*(6/7), 466–474. doi: 10.1037/0003-066X.58.6-7.466

Gresham, F. M. (2004). Current status and future directions of school-based behavioral interventions. *School Psychology Review, 33*(3), 326-343.

Han, S. S., & Weiss, B. (2005). Sustainability of teacher implementation of school-based mental health programs. *Journal of Abnormal Child Psychology, 33*(6), 665-679. doi:10.1007/s10802-005-7646-2

Hawken, L. S., Vincent, C. G., & Schumann, J. (2008). Response to intervention for social behavior: Challenges and opportunities. *Journal of Emotional and Behavioral Disorders, 16* (4), 213-225. doi: 10.1177/1063426608316018

Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6,* 1-55.

Individuals with Disabilities Education Improvement Act, 20 U.S.C. § 1400 (2004).

Jorm, A. F., Kitchener, B. A., Sawyer, M. G., Scales, H., & Cvetkovski, S., (2010). Mental health first aid training for high school teachers: A cluster randomized trial. *BMC Psychiatry, 10*(51), 1-12.

King, K. A., Price, J. H., Telljohann, S. K., & Wahl, J. (1999). High School Health Teachers' Perceived Self-Efficacy in Identifying Students at Risk for Suicide. *Journal of School Health, 69*(5), 202-207.

Kokkinos, C. M., Panayiotou, G., & Davazoglou, A. M. (2005). Correlates of teacher appraisals of student behaviors. *Psychology in the Schools, 42*(1), 79-89. doi: 10.1002/pits.20031

Kratochwill, T. R., & Shernoff, E. S. (2004). Evidence-based practice: Promoting evidence-based interventions in school psychology. *School Psychology Review, 33*(1), 34–48.

Lane, K.L. (2007). Identifying and supporting students at risk for emotional and behavioral disorders within multi-level models: Data driven approaches to conducting secondary interventions with an academic emphasis. *Education and Treatment of Children, 30*(4), 135-164.

Little, R .J. & Rubin, D. B. (1987). *Statistical analysis with missing data.* New York: Wiley.

Loades, M. E., & Mastroyannopoulou, K. (2010). Teachers' recognition of children's mental health problems. *Child and Adolescent Mental Health, 15*(3), 150-156. doi: 10.1111/j.1475-3588.2009.00551.x

Lopez, M., Forness, S. R., Bocian, K., MacMillan, D. L., & Gresham, F. M. (1996). Children with attention deficit hyperactivity disorder and emotional or behavioral disorders in primary grades: Inappropriate placement in the learning disability category. *Education & Treatment of Children, 19,* 286–299.

MacCallum, R. C., Browne, M. W., & Sugawara, H. M. (1996). Power analysis and determination of sample size for covariance structure modeling. *Psychological Methods, 1*, 130-149.

Mathews, S., McIntosh, K. M., Frank, J. L., & May, S. L. (2014). Critical features predicting sustained implementation of school-wide positive behavioral interventions and supports. *Journal of Positive Behavior Interventions, 16,* 168-178. doi: 10.1177/1098300713484065

Merrell, K. W. (2008). *Helping students overcome depression and anxiety: A practical guide* (2nd ed.). New York, NY: Guilford.

Merrell, K. W., & Buchanan, R. (2006). Intervention selection in school-based practice: Using public health models to enhance systems capacity of schools. *School Psychology Review, 35*, 167–180.

Muthén, L. K., & Muthén, B. O. (2012). Mplus user's guide. Seventh Edition. *Los Angeles, CA: Muthén & Muthén*.

National Association of School Psychologists. (2006). Social/Emotional Development: School-Based Mental Health Services and School Psychologists. Retrieved from National Association of School Psychologists website: http://www.nasponline.org/resources/handouts/sbmhservices.pdf

No Child Left Behind (NCLB) Act of 2001, Pub. L. No. 107-110, § 115, Stat. 1425. (2002).

Papandrea, K., & Winefield, H. (2011). It's not just the squeaky wheels that need the oil: Examining teachers' views on the disparity between referral rates for students

with internalizing versus externalizing problems. *School Mental Health, 3*(4), 222-235. doi: 10.1007/s12310-011-9063-8

Preacher, K. J., & Coffman, D. L. (2006). Computing power and minimum sample size for RMSEA [Computer software]. Retrieved from http://quantpsy.org/

Roeser, R. W., & Midgley, C. (1997). Teachers' views of issues involving students' mental health. *The Elementary School Journal, 98*(2), pp. 115-133. Retrieved from http://www.jstor.org.lib-ezproxy.tamu.edu:2048/stable/1002138

Scott, T. M., Bucalos, A., Liaupsin, C., Nelson, C. M., Jolivette, K., & DeShea, L. (2004). Using functional behavior assessment in general education settings: Making a case for effectiveness and efficiency. *Behavioral Disorders, 29*(2), 189-201.

Severson, H. S., Walker, H. M., Hope-Doolittle, J., Kratochwill, T. R., & Gresham, F. M. (2007). Proactive, early screening to detect behaviorally at-risk students: Issues, approaches, emerging innovations, and professional practices. *Journal of School Psychology, 42*(2), 193-223.

Slade, E. P. (2003). The relationship between school characteristics and the availability of mental health and related health services in middle and high schools in the United States. *Journal of Behavioral Health Services & Research, 30,* 382-392.

Sprick, R.S., Garrison, M., & Howard, L. (2002). *Foundations: Establishing positive discipline and school-wide behavior support* (2nd ed). Eugene, OR: Pacific Northwest Publishing.

Stormont, M., Reinke, W., & Herman, K. (2011). Teachers' knowledge of evidence-based interventions and available school resources for children with emotional and behavioral problems. *Journal of Behavioral Education, 20*, 138–147.

Sugai, G., Homer, R, H., & Gresham, F. M., (2002), Behaviorally effective school environments. In M, Shinn, H, Walker, & G, Stoner (Eds,), *Interventions for academic and behavior problems II* (pp, 315-350), Bethesda, MD: National Association of School Psychologists.

Sugai, G., & Horner, R. R. (2006). A promising approach for expanding and sustaining school-wide positive behavior support. *School Psychology Review, 35*(2), 245-259.

Sugai, G., Horner, R. H., & Todd, A. W. (2003). Effective Behavior Support (EBS) Survey: Assessing and planning behavior support in schools. Eugene: University of Oregon.

Sugai, G., Lewis-Palmer, T., Todd, A., & Horner, R. (1999). School-Wide Evaluation Tool (SET). Eugene: University of Oregon.

Tolan, P. H., & Dodge, K. A. (2005). Children's mental health as a primary care and concern: A system for comprehensive support and service. *American Psychologist, 60*(6), 601-614. doi: 10.1037/0003-066X.60.6.601

U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. (2013). *Mental health surveillance among children – United States, 2005-2011.* (MMWR Supplement 62(2). 1-35. Retrieved from http://www.cdc.gov/mmwr/preview/mmwrhtml/su6202a1.htm

United States Congress, Senate Committee on Health, Education, Labor, and Pensions. (2003) *The President's Commission on Excellence in Special Education: hearing before the Committee on Health, Education, Labor, and Pensions, United States Senate, 107th Congress, second session on examining recommendations of the President's Commission on Excellence in Special Education regarding the Individuals with Disabilities Act of 1997 IDEA, July 9, 2002*. [Washington: U.S. G.P.O.: For sale by the Supt. of Docs., U.S. G.P.O., Congressional Sales Office] [Online Text] Retrieved from the Library of Congress, https://lccn.loc.gov/2003387489.

Walker, B. A. (2006). *The initial psychometric assessment of the BEACONS positive behavior support individual and team self-assessment and program review*. (Doctoral dissertation, University of Washington). Retrieved from https://digital.lib.washington.edu/researchworks/bitstream/handle/1773/7605/3224309.pdf?sequence=1

Walker, B. A., Cheney, D., Stage, S., & Blum, C. (2005). School-wide screening and positive behavior supports: Identifying and supporting students at-risk for school failure. *Journal of Positive Behavior Interventions, 7*, 194-204.

Walter, H. J., Gouze, K., Lim, K. G. (2006). Teachers' beliefs about mental health needs in inner city elementary schools. *Journal of American Academy Child Adolescent Psychiatry, 45*(1), 61-68. doi: 10.1097/01.chi.0000187243.17824.6c

Wilson, S. J., Lipsey, M. W., & Derzon, J. H. (2003). The effects of school-based intervention programs on aggressive behavior: A meta-analysis. *Journal of*

Consulting and Clinical Psychology, 71(1), 136–149. doi: 10.1037/0022-006X.71.1.136

Yuan, K. H., & Bentler, P. M. (2000). Three likelihood-based methods for mean and covariance structure analysis with non-normal missing data. *Sociological Methodology*. 30(1),165–200.

APPENDIX A

TEACHER KNOWLEDGE AND SKILLS SURVEY FOR POSITIVE BEHAVIOR SUPPORT*

Instructions

Rate you on your knowledge, skill level, or awareness of the following items on the following pages. It is very important that you rate yourself accurately. If you are not knowledgeable on a particular set of items or item, it does not reflect poorly on you as an educator. As an educator, you are always engaged in process of improving your skill sets to better serve your students. By engaging in an honest evaluation of your skill level you will be able to help you and your school focus professional development on your needs and your school's needs. The rating scale ranges from one to five across the following anchors:

1=none or little 2=somewhat 3=moderate 4=strong 5=very strong

You should consider both your educational background and practical experience in your rating. High skill levels are associated with strong educational backgrounds, compelling evidence of successful application of the skill, and external validation of your use of the skill. Limited skill levels are based on limited formal educational exposure, no or limited practical experience, and no external validation of your skill level. It is our experience that most educators operate somewhere along this continuum of competence. We have provided definitions to assist you in your rating of your skill level. You should adhere to these definitions when rating yourself along this continuum of competence in Table 1. Review them carefully before proceeding.

Thank you for completing the survey and your dedicated service.

---

*Scale used with permission from *Teacher Knowledge and Skills Survey for Positive Behavior Support*, by Cheney, D., Blum, C., & Walker, B., 2009, Seattle, Washington with permission from the authors. Copyright 2009 by Cheney, D., Blum., C. & Walker, B.

Table 1 Teacher Knowledge Continuum for Positive Behavior Support

1=none or little	I am not aware of the knowledge, policy, or skill – or, I am a slightly aware (e.g., heard of it) but have never practiced it or applied it.
2=somewhat	I am aware of the of the knowledge, policy, or skill, and I was exposed to this content in some professional development/university course work, and have had some limited applied practice (i.e., project; practicum; some work experience) in using knowledge, policy, or skill. No principal or behavior specialist knowledgeable in positive behavior supports has ever validated this applied skill through **observation of me**.
3=moderate	I have demonstrated my understanding of the knowledge, policy, or skill through a comprehensive professional development (i.e., multiple follow-up sessions where I had to demonstrate my knowledge). And, I have use or applied the knowledge policy or skill in an applied instructional setting. No principal or behavior specialist knowledgeable in positive behavior supports has ever validated this applied skill through **observation of me.**
4=strong	I have demonstrated my understanding of the knowledge, policy, or skill through a comprehensive professional development (i.e., multiple follow-up sessions where I had to demonstrate my knowledge) or university course work skill and I perceive myself to apply it successfully some of the time in practice and either a principal or behavior specialist knowledgeable in positive behavior supports has validated my skill through **observation** on **at least one** occasion.
5=very strong	I have demonstrated my understanding of the knowledge, policy, or skill through a comprehensive professional development (i.e., multiple follow-up sessions where I had to demonstrate my knowledge) or university course work skill and have repeatedly demonstrated successful independent implementation, of the knowledge, skill, or policy as evidenced and validated by a principal or behavior specialist knowledgeable in positive behavior supports using **multiple observations** and **confirmation** of my mastery level of performance.

1=none or little 2=somewhat 3=moderate 4=strong 5=very strong

Rate the following regarding your knowledge on the item:	**Rating**
1. I know our school's policies and programs regarding the prevention of behavior problems.	1 2 3 4 5
2. I understand the role and function of our schoolwide discipline team.	1 2 3 4 5
3. I know our annual goals and objectives for the schoolwide discipline program.	1 2 3 4 5
4. I know our school's system for screening with students with behavior problems.	1 2 3 4 5
5. I know how to access and use our school's pre-referral teacher assistance team.	1 2 3 4 5
6. I know how to access and use our school's counseling programs.	1 2 3 4 5
7. I know the influence of cultural/ethnic variables on student's school behavior.	1 2 3 4 5
8. I know the programs our school uses to help students with their social and emotional development (schoolwide expectations, conflict resolution, etc.).	1 2 3 4 5
9. I know a range of community services to assist students with emotional/behavioral problems.	1 2 3 4 5
10. I know our school's discipline process – the criteria for referring students to the office, the methods used to address the problem behavior, and how and when students are returned to the classroom.	1 2 3 4 5
11. I know what functional behavioral assessments are and how they are used to develop behavior intervention plans for students.	1 2 3 4 5
12. I know how our schoolwide discipline team collects and uses data to evaluate our schoolwide discipline program.	1 2 3 4 5
13. I know how to provide accommodations and modifications for students with emotional and behavioral disabilities (EBD) to support their successful participation in the general education setting.	1 2 3 4 5
14. I know our school's crisis intervention plan for emergency situations.	1 2 3 4 5

1= none or little 2= somewhat 3= moderate 4=strong 5=very strong

---

Rate how effectively you use the following skills/strategies.

	Rating				
15. Approaches for helping students to solve social/interpersonal problems.	1	2	3	4	5
16. Methods for teaching the schoolwide behavioral expectations/social skills.	1	2	3	4	5
17. Methods for encouraging and reinforcing the use of expectations/social skills.	1	2	3	4	5
18. Strategies for improving family-school partnerships.	1	2	3	4	5
19. Collaborating with the school's student assistance team to implement student's behavior intervention plans.	1	2	3	4	5
20. Collaborating with the school's IEP team to implement student's individualized education programs.	1	2	3	4	5
21. Evaluating the effectiveness of student's intervention plans and programs.	1	2	3	4	5
22. Modifying curriculum to meet individual performance levels.	1	2	3	4	5
23. Selecting and using materials that respond to cultural, gender or developmental differences.	1	2	3	4	5
24. Establishing and maintaining a positive and consistent classroom environment.	1	2	3	4	5
25. Identifying the function of student's behavior problems.	1	2	3	4	5
26. Using data in my decision-making process for student's behavioral programs.	1	2	3	4	5
27. Using prompts and cues to remind students of behavioral expectations.	1	2	3	4	5
28. Using self-monitoring approaches to help students demonstrate behavioral expectations.	1	2	3	4	5
29. Communicating regularly with parents/guardians about student's behavioral progress.	1	2	3	4	5
30. Using alternative settings or methods to resolve student's social/emotional problems (problem-solving, think time, or buddy room, etc. **not a timeout room**).	1	2	3	4	5
31. Methods for diffusing or deescalating student's social/emotional problems.	1	2	3	4	5
32. Methods for enhancing interpersonal relationships of students (e.g., circle of friends, buddy system, peer mentors).	1	2	3	4	5
33. Linking family members to needed services and resources in the school.	1	2	3	4	5

APPENDIX B

DEMOGRAPHICS, ACCESS, CONFIDENCE, AND KNOWLEDGE SURVEY(DACKS)

1. Please indicate your current position.
    a) General Education Teacher
    b) Special Education Teacher
    c) Administrator
    d) General Education Counselor
    e) Mental Health Provider (LSSP, Social Worker, etc.)
    f) Other
2. Gender? ____ Male ___ Female
3. Please indicate your ethnicity:
    a. Hispanic/Latino
    b. Caucasian/White
    c. Native American/Indian
    d. African American/Black
    e. Asian/Pacific Islander
    f. Other (please specify): _____
4. Please indicate your highest level of university training.

a) Some college

b) Bachelor's degree

c) Some graduate courses

d) Master's degree

e) Doctoral degree

5. How were you certified?

    a. Traditional certification

    b. Alternative certification

    c. Not applicable or not yet certified

6. What type of certification do you have? (check all that apply):

    a. Early Childhood

    b. Elementary Education

    c. Middle School

    d. Secondary or High School

    e. Bilingual

    f. Special Education

    g. Other (please specify _____)

7. Please indicate which grade(s) you currently teach or where you currently work.

    a. Early Childhood or Preschool

    b. Elementary (K-4)

    c. 5-6

    d. 7-8

    e. 9-12

    f. District-wide (e.g., special education)

8. Please indicate approximately how many students you teach per day

   _____.

9. Please indicate what subject(s) you currently teach (check as many that apply)?

   -English\Language Arts

   -Math

   -Reading

   -Special Education

   -Science

   -Social Studies/History

   -Fine Arts (e.g., music, art, drama)

   -Physical Education

   -English as a Second Language

   -Bilingual Education

   -Career and Technology Education

   -Other (please specify) _____

10. How many years of teaching experience do you have? _____

11. Please write in the name of the district where you are currently employed.

    _____

12. Please estimate the number of college courses that you have taken that included content/training specific to student focused mental health awareness.

    Number of college courses (approximate): _____

13. Please indicate the approximate number of in-service training hours specific to student mental health since 2013. Approximate number of hours:

    _____

14. Please indicate your current level of agreement with the following statement. My school is effective in managing emotional-behavioral interventions.
    a. Strongly agree
    b. Agree
    c. Unsure/Neither Agree nor Disagree
    d. Disagree
    e. Strongly disagree
15. Please indicate your current level of agreement with the following statement. My school offers a wide array of student mental health services and supports.
    a. Strongly agree
    b. Agree
    c. Unsure/Neither Agree nor Disagree
    d. Disagree
    e. Strongly disagree
16. I have access to mental health professionals on my campus (e.g., Licensed Specialist in School Psychology, Social Worker, Counselor).
    a. Yes
    b. No

17. Please indicate which of following resources are available to you in your school when you need guidance on how to address student mental health concerns (e.g., consultation, referral for services).

    -School Counselor

    _Administrator

    _Licensed Specialist in School Psychology (LSSP)

    _Behavior Specialist

    _Fellow teacher

    _Lead teacher

    _Special education teacher

    _Mental health outreach counselor or Social Worker

    _Other mental health support staff

    _Internet sources (e.g., Google, Web MD, nasponline.org)

18. Where do you generally seek advice/information when you have mental health concerns about your students? Please rank your top three of the following sources with 1 being your top choice and 3 being your third choice.

    -School Counselor

    _Administrator

    _ Licensed Specialist in School Psychology (LSSP)

    _Behavior Specialist

    _Fellow teacher

    _Lead teacher

    _Special education teacher

_Mental health outreach counselor or Social Worker

_Other mental health support staff

_Internet sources

19. Please indicate your current level of agreement with the following statement. I feel confident in my ability to recognize students who exhibit externalizing disorders (e.g., Attention Deficit-Hyperactive Disorder, oppositional defiant disorder, or conduct disorder).
    a. Strongly agree
    b. Agree
    c. Unsure/Neither Agree nor Disagree
    d. Disagree
    e. Strongly disagree
20. Please indicate your current level of agreement with the following statement. I know at least two or more evidence-based interventions designed to address student externalizing disorders (e.g., Attention Deficit-Hyperactive Disorder, oppositional defiant disorder, or conduct disorder).
    a. Strongly agree
    b. Agree
    c. Unsure/Neither Agree nor Disagree
    d. Disagree
    e. Strongly disagree
21. Please indicate your current level of agreement with the following statement.

I feel confident in my ability to provide interventions designed to address student externalizing disorders (e.g., behavioral contracts or token economies).

a. Strongly agree
b. Agree
c. Unsure/Neither Agree nor Disagree
d. Disagree
e. Strongly disagree

22. Please indicate your current level of agreement with the following statement.

I feel confident in my ability to recognize students who exhibit internalizing mental health concerns (e.g., anxiety, depression).

a. Strongly agree
b. Agree
c. Unsure/Neither Agree nor Disagree
d. Disagree
e. Strongly disagree

23. Please indicate your current level of agreement with the following statement.

I know at least two or more evidence-based practices designed to address student internalizing mental health concerns (e.g., anxiety, depression).

a. Strongly agree
b. Agree
c. Unsure/Neither Agree nor Disagree
d. Disagree
e. Strongly disagree

24. Please indicate your current level of agreement with the following statement. I feel confident in my ability to provide interventions for students with internalizing mental health concerns (e.g., social skills problem solving or emotional intelligence curriculum).
    a. Strongly agree
    b. Agree
    c. Unsure/Neither Agree nor Disagree
    d. Disagree
    e. Strongly disagree
25. Please indicate your current level of agreement with the following statement. I feel confident in my ability to recognize students who exhibit other mental health problems (e.g., autism, schizophrenia, bipolar disorder).
    a. Strongly agree
    b. Agree
    c. Unsure/Neither Agree nor Disagree
    d. Disagree
    e. Strongly disagree
26. Please indicate your current level of agreement with the following statement. I feel confident in my ability to provide interventions for students with other mental health concerns (e.g., autism, schizophrenia, bipolar disorder).
    a. Strongly agree
    b. Agree
    c. Unsure/Neither Agree nor Disagree

d. Disagree

e. Strongly disagree

27. Please indicate your current level of agreement with the following statement.

I feel confident in my ability to recognize suicide risk factors.

a. Strongly agree

b. Agree

c. Unsure/Neither Agree nor Disagree

d. Disagree

e. Strongly disagree

28. Please indicate your current level of agreement with the following statement.

I feel confident in my ability to talk with students who might be suicidal.

a. Strongly agree

b. Agree

c. Unsure/Neither Agree nor Disagree

d. Disagree

e. Strongly disagree

29. What do you see as barriers for students to receive mental health services in your school?

APPENDIX C

PROPOSED STRUCTURAL EQUATION MODEL (SEM)